

The CHEMIST AND DRUGGIST

RETAILER — WHOLESALER — MANUFACTURER

FEBRUARY 16, 1952

EASY AND
PLEASANT TO
ADMINISTER
TO CHILDREN
OF ALL AGES



Indicated in the treatment of many bacterial, viral and rickettsial infections, including:

PERTUSSIS · PRIMARY ATYPICAL PNEUMONIA · BACTERIAL PNEUMONIA · INFANTILE GASTRO-ENTERITIS · LARYNGO-TRACHEO-BRONCHITIS · HÆMOPHILUS INFLUENZÆ · MINGITIS · SALMONELLOSIS & CARRIERS · URINARY INFECTIONS · SURGICAL INFECTIONS · MEASLES · MUMPS

PÆDIATRIC

CHLOROMYCETIN® PALMITATE

The introduction of Pædiatric Chloromycetin Palmitate is an important advance in Chloromycetin medication. It simplifies administration to children and to those unable to take capsules. Pædiatric Chloromycetin Palmitate is a pleasantly flavoured suspension containing a tasteless derivative of Chloromycetin (chloramphenicol, Parke-Davis). It is extremely acceptable to children of all ages and is being acclaimed by physicians everywhere.

Supplied in 60 c.c. bottles. Each teaspoonful (4 c.c.) contains the equivalent of 125 mgm. Chloromycetin.



Parke, Davis

AND COMPANY, LIMITED

Inc. U.S.A.

HOUNSLOW, MIDDLESEX

Telephone: Hounslow 2361

® REGISTERED TRADE MARK



B12 'DISTIVIT'

'DISTIVIT' B12 presents a solution of crystalline Vitamin B12 in an especially pure and potent form. It is issued in three strengths, in ampoules containing 20, 50 and 100 micrograms per ml. in boxes of 5 x 1 ml. ampoules.

Distributed by

BURROUGHS WELLCOME & CO.
EVANS MEDICAL SUPPLIES LTD.
IMPERIAL CHEMICAL (PHARMACEUTICALS) LTD.

'DISTIVIT', a trade mark, the property of the manufacturers

**THE DISTILLERS COMPANY
(BIOCHEMICALS) LIMITED**

SPEKE

LIVERPOOL

The Best-Selling DENTURE FIXATIVE

*Persistently Advertised
in Newspapers and
Magazines*

*Consistently Used
by millions of
Denture Wearers*

**STOCK, DISPLAY,
RECOMMEND & SELL**

**Dr. Wernet's
Powder**

In tins: Two sizes, Small and Medium

Supplies From Wholesale Houses

**WERNET DENTAL MFG. CO
MILL GREEN · HATFIELD · HERTS.**

1,000 DENTISTS RECOMMEND IT THE WORLD OVER!





Are you
ready
for bigger
SUNGLAS
Sales

Wise buyers are planning now for bigger sunglass sales this year. If you have not already ordered your stocks of the new 1952 Thurgar Bollé Sunglasses NOW IS THE TIME.

Again this year Thurgar Bollé offer you the most exclusive range in attractive eyewear. Intriguing designs and colours that fascinate at prices to suit all pockets.

If you have not received details of the new 1952 models write for them today.

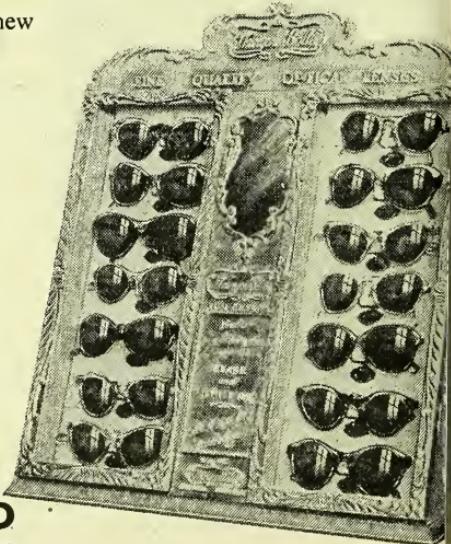
Thurgar Bollé
SUNGLASSES
Such comfort - such elegance

THURGAR BOLLÉ LTD

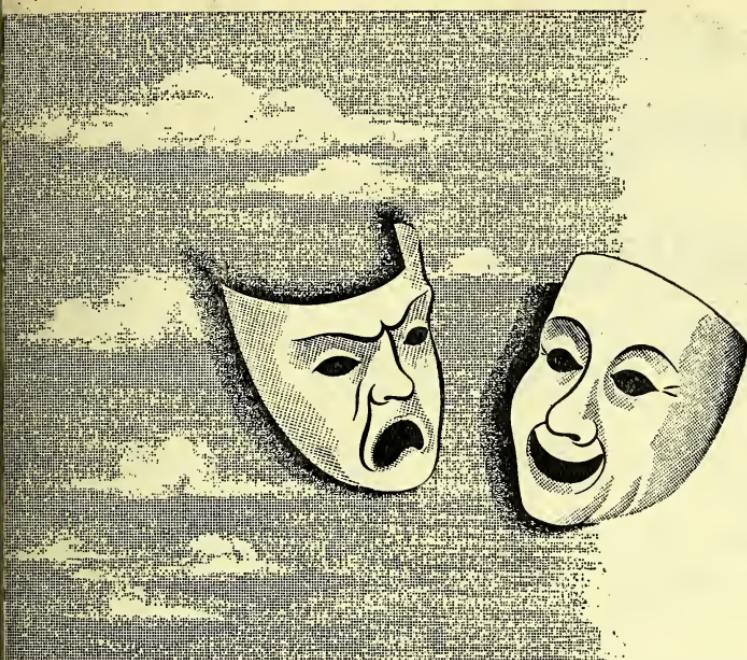
ORIENT HOUSE, WELLINGBOROUGH, NORTHANTS

Telephone: Wellingborough 2415

London Showrooms: 96 Regent Street, London, W.1.



Thurgar Bollé Regency Cabinet supplied free for Thurgar Bollé Sunglasses. Free showcards and leaflets—particulars on request.



THE POST-INFLUENZAL TONIC

A preparation for treating the debility following influenza should contain haemopoietic factors, central nervous stimulants, factors known to stimulate the appetite and factors considered to be of general tonic value. Collotone provides a palatable combination of such factors which can be taken undiluted or in water.

In 4 oz., 8 oz. and 80 oz. bottles.

COLLOTONE



—containing Iron and chromium, nux vomica,
caffeine citrate, vitamin B₁ and glycerophosphates.

PATA



THE CROOKES LABORATORIES LIMITED • PARK ROYAL LONDON • N.W.10

Don't miss this DISPLAY BONUS OFFER

7½%

10%

Details of our Special Display Bonus Offer have been sent out to all our Retail Chemist friends. Have you sent in your order yet? We offer, in return for a 14 day window display of these three popular lines, the following *additional* discounts.

- ON MIXED PARCELS BETWEEN £5 AND £10 VALUE 7½%
- ON MIXED PARCELS OF £10 AND OVER 10%

Operating during February, March and April, 1952.

PUBLICITY PROGRAMME FOR 1952

National, Provincial and Sunday newspapers, Magazines and other journals will carry increased publicity during 1952. There will be more and more buyers in your area. More and more business for you. Take advantage of this bonus offer and reap substantial extra profit. Attractive display material sent with each parcel. If you have not received full particulars of our special offer, write to-day when details will be sent you by return.



MOORLANDS



PENETROL



& URILLAC

W. B. CARTWRIGHT LTD · RAWDON · LEEDS

INDEX TO ADVERTISERS

cine Vacuum Flask Co.	vii	Container Recovery Service... 22	Gnome Photographic Pro-
ddis, Ltd.	10	Cox, Arthur H., & Co., Ltd. 8	ducts, Ltd. vi
Ibro Fillers & Engineering Co., Ltd.	30	Cresswell Bros. Sponges xix	Golden, Ltd. xxxii
llans	30	Crookes Laboratories, Ltd. ... 3	Gosheron, John, & Co., Ltd. x
mar, R. H. & Co., Ltd.	iv	Cuticura Shaving Stick xxx	Graesser Salicylates, Ltd. iii
mber Pharmaceuticals, Ltd.	6	D.C.L. Yeast Tablets xxix	Halewood Chemicals, Ltd. ... viii
rmour Laboratories, The	38	Dalmas, Ltd. xxv	Hardy, M. W. & Co., Ltd. 20
utomatic Weighing & Packing Machine Co.	29	Daniel, H. E., & Co., Ltd. ... iii	Harley, T., Ltd. Leader Page
amag, Ltd.	26	Daniel, Richard, & Son, Ltd. 13	Harris, F. & R. M. (B'ham), Ltd. 34
anister Street Works, Ltd., The	28	Davenport, J. T., Ltd. xxxii	Herts Pharmaceuticals, Ltd. xxxviii
arber Electrical Services, Ltd.	ix	Distillers Co. (Biochemicals), Ltd. Cover ii	Hill, Thomas, Engineering Co. (Hull), Ltd., The 25
arker, R., & Son, Ltd.	xii	Dr. Williams Pink Pills xiv	Hovenden, R., & Sons, Ltd. 42
eechams (Northern), Ltd.	7	Edge, Wm., & Sons, Ltd. iv	Howards & Sons, Ltd. i
ell, John, Hills & Lucas, Ltd.	xxiv	Evans Medical Supplies, Ltd. 13	
esco, Ltd.	vi	Fennings, A. 41	Impact Works 30
lakey's Food Co., Ltd.	42	Flexile Metal Co., Ltd. 35	Imperial Chemical (Pharmaceuticals), Ltd. 21
British Cod Liver Oil (Hull & Grimsby), Ltd.	37	Fluid Equipment Co., Ltd. 28	International Laboratories, Ltd. Leader Page
British Drug Houses, Ltd., The	9	Franco-British Glass Co., Ltd. iv	Invernì & Della Beffa xii
British Permanent Starch Co., Ltd.	xvi	Franks, A., & Bartlett Co., Ltd. xx	Isopad, Ltd. 28
loughrups Wellcome & Co.	49	Freudentheil, Smith & Co. Leader Page	
Carnegie Chemicals (Welwyn), Ltd.	Cover iii	G. B. Equipment Co. 36	Jarrett, Rainsford & Laugh-
Cartwright, W. B., Ltd.	4	Gale & Mount, Ltd. 42	ton, Ltd. 48
Coates & Cooper, Ltd.	xxvii	Gallard-Schlesinger Chemical Co. xxvii	Jason & Stuart Products ... xxiv
Cohen, George, Sons & Co., Ltd.	29	Gardner, W., & Sons (Glos.), Ltd. 31	Jeffreys, Miller & Co., Ltd. iv
		Gledhill, G. H., & Sons viii	Jones, Samuel & Co., Ltd. vi

(continued overleaf)

Enterprising display under glass provides protection from POLLUTION & PILFERAGE

FULL RANGE FOR EVERY PURPOSE



MADE &
DELIVERED

by

WATERHOUSE
Makers of Fine Shop Fittings

BULL BRIDGE, ACCRINGTON, LANCS. Tel: ACCRINGTON 4238

INDEX (cont.)

Parke, Davis & Co., Ltd.	Front Cover
Parkinsons, Ltd.	xxvi
Payne, P. P., & Sons, Ltd.	xxii
Pentecon, Ltd.	32
Pharmaceutical Laboratories Geigy, Ltd.	xxxi
Phillips, Chas. H., Chemical Co., Ltd.	xiii
Pifco, Ltd.	x
Pitman, Sir Isaac, & Sons, Ltd.	38
Podmores (Engineers), Ltd.	34
Priory Laboratories, Ltd.	xxiv
Prom Home Perm	44, 45
Macdonald & Son, Ltd.	16
Manesty Machines, Ltd.	23
Mark-o-Print, Ltd.	26
Maw, S., Son & Sons, Ltd.	12
Mawson and Proctor, Ltd.	xxxv
Meggesson & Co., Ltd.	17
Mellin's Food, Ltd.	40
Menley & James, Ltd.	43
Mitchell, L. A., Ltd.	30
Monsanto Chemicals, Limited	18, 19
Murray, S., & Co., Ltd.	v
National Glass Works (York), Ltd.	xvii
Newton Chambers & Co., Ltd.	xxxii
Odedent Co., The ...Leader Page	
Ormerod Engineers, Ltd.	34
Orridge & Co. Col. Supp.	
Ortho Pharmaceuticals, Ltd.	xviii
Parke, Davis & Co., Ltd.	
Parkinsons, Ltd.	xxvi
Payne, P. P., & Sons, Ltd.	xxii
Pentecon, Ltd.	32
Pharmaceutical Laboratories Geigy, Ltd.	xxxi
Phillips, Chas. H., Chemical Co., Ltd.	xiii
Pifco, Ltd.	x
Pitman, Sir Isaac, & Sons, Ltd.	38
Podmores (Engineers), Ltd.	34
Priory Laboratories, Ltd.	xxiv
Prom Home Perm	44, 45
Rayner & Co., Ltd.	xxxi
Reid, David, Ltd.	xxxi
Remington Rand, Ltd.	xxxvii
Riley, J., & Sons, Ltd.	iv
Rozalex, Ltd.	xxvi
Russell Constructions, Ltd.	32
Salter, George, & Co., Ltd.	viii
Samuelson, P., & Co.	ii
School of Surgical Chiropody	xxx
Scott & Turner, Ltd.	xxx
Sessions, Wm., Ltd.	Leader Page
Sharpe & Dohme, Ltd.Cover	iv
Smith & Hill (Chemists), Ltd.	xxviii
Sorex (London), Ltd.	46
Standard Synthetics, Ltd.	ii
Stannard, S. C., Ltd.	xxiv
Steradent	ii
Swan Mill Paper Co., Ltd.	xxiii
Taylor, William & Co. (Edinburgh), Ltd.	14-1
Thompson & Capper Wholesale, Ltd.	4
Thornton & Ross, Ltd.	x
Thurgar Bolts (Successors), Ltd.	
Toulson, M. P., Ltd.	xi
Trapow, D., & Co., Ltd.	3
Tunnel Glucose Refineries	i
Tyrer, T., & Co., Ltd.	2
Universal Metal Products, Ltd.	2
Vacco, Ltd.	
Wallis Laboratory, Ltd., The	
Wander, A., Ltd.	2
Warrick Bros., Ltd.	
Washington Chemical Co., Ltd.	xxvi
Waterhouse, Ltd.	
Wernet Dental Manufacturing Co.	
Wesley, Harold, Ltd.	
White, A. J., Ltd. (Nefco)	
Whitley & Co. (Manchester), Ltd.	vi
Wilkinson, S. W., & Co., Ltd.	
Woodward, G. O., & Co., Ltd.	
Zimmermann, Chas., & Co., Ltd.	



**COMPRESSED
TABLETS**

AMINOPHYLLINE
A.P.C.
BARBITURATES
CARBROMAL
CODEINE CO.
EPHEDRINE HCL.
SULPHA. DRUGS
THYROID
VITAMINS

AMBER PHARMACEUTICALS LTD.

Manufacturers of Fine Chemicals and Pharmaceutical Products

BYRON HOUSE, 7-9 ST. JAMES'S STREET, LONDON, S.W.1

I insist
on
Beecham's
Powders
for colds



**ARE YOU
ABLE TO MEET THIS DEMAND?**

If customers go elsewhere, they take with them *profits which should flow into your till*. Don't miss this profitable turnover. Replenish stocks frequently. Maintain window and counter displays to tie up with the widespread volume of press and poster publicity. Show material available on request.

Sole Distributors for Beechams Pills Ltd., St. Helens, Lancs.

**BEECHAM (NORTHERN) LIMITED
ST. HELENS, LANCASHIRE**

IT'S WORTH CONSIDERING ...

Many manufacturers have found to their advantage that it pays to scrap their pill plant now working at a small percentage of capacity and have their Pills made by —

Originators
of the
TASTELESS
COATING

COX of BRIGHTON

An organisation with specialized experience.

Bulk or Packed, we should be pleased to quote for your requirements in the strictest confidence.

FOUNDED

1839

YOU CAN RELY ON 'COX' !

ARTHUR H. COX & CO. LTD.

BRIGHTON • SUSSEX • ENGLAND

CONTRACTORS TO H.M. GOVERNMENT



Just to remind you

MULTIVITE in its new bottle pack of 50 pellets combines the virtues of shelf appeal with economy. A neat display carton of six bottles supplemented by a showcard in full colour is available to encourage impulse sales.

'MULTIVITE' VITAMINS A B₁ C D₂

Bottle of 50 'Multivite' pellets: Pharmacists 2/4: Retail 3/6

Remember also

'RADIO-MALT'

the vitamin preparation with the delicious toffee flavour

1 lb. jar Pharmacists 2/5½ Retail 3/6
2 lb. jar " 4/2 " 6/-

'FERBELAN'

the new B.D.H. tonic for children

Bottle of 4 fl. oz. Pharmacists 2/6
Retail 3/9

Quantity terms on application

THE BRITISH DRUG HOUSES LTD. LONDON N.1

Only a few days left for ADDIS NAILBRUSH BONUS OFFER!

If you have not yet already taken advantage of the Addis nailbrush display bonus offer—Hurry! Closing date is February 29th.

Every Addis bonus nailbrush parcel contains a dozen each of the three widely advertised, smartly styled, quick-selling Addis nailbrush lines—Grippy, Little Grippy, Duk—PLUS one extra of each line, FREE, with Purchase Tax paid! So you get a baker's dozen for the price of 12—8/2d. extra retail margin on each parcel.

Place your order now. Your wholesaler will be glad to let you have a Bonus Order Form if you have not got one.


REGD.
ADDIS LTD. OF HERTFORD

Of these five people . . .



... three wear dentures*



The significance of these figures is that 3 out of 5 of your adult customers should be regular customers for Steradent.

For they want what Steradent gives them—"oxygen-clean" false teeth: thoroughly, safely, "oxygen-cleaned" in every corner and crevice.

Steradent is backed by a powerful national advertising campaign.

planned to sell "oxygen-cleaning" to every denture wearer in Britain.

Which means **to 3 out of 5 of your adult customers.**

* Figures from latest national statistics.

Steradent

Specially made to
"oxygen-clean" false teeth



About that NEW BABY



You'll need a bottle — and you'll need a teat — whether you feed Baby yourself or not. There is no need to worry what to do or what to buy. Maw's supply both, as a COMPLETE FEEDING SET, hygienically packed in a dust-proof carton at no extra cost to you.

And here's why Maw's Feeding Set is best for Baby and best for you:—

MAW'S BABY BOTTLE is made of Pyrex brand heat-resisting glass—it can be sterilised by plunging straight into boiling water. Its six smooth sides make it simple to clean and so easy for Baby to grip.

MAW'S ANTI-COLIC TEAT is the next best thing to yourself: it takes up the correct cherry shape in Baby's mouth when feeding. Non-slipping, reversible, easy to clean; it can be sterilised by boiling.



MAW'S BABY FEEDING SET
Packed in the Blue-and-White Carton
BEST FOR BABY—BEST FOR YOU
FROM CHEMISTS ONLY

S. MAW SON & SONS LIMITED, BARNET, ENGLAND, MAKERS OF ALL SURGICAL DRESSINGS, VELFIN TOWELS AND BABY GOODS

This advertisement means MAW customers for you

HERE is an advertisement designed to send customers into your shop. It is appearing in magazines and newspapers all over the country—and young mothers everywhere are reading it and remembering the name of Maw's when they go to buy a

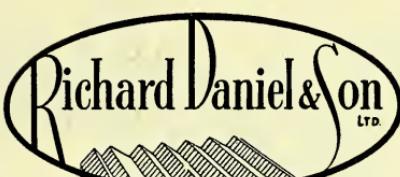
feeding set for baby. Make the most of this advertising by carrying ample stocks of Maw's Baby Feeding Sets hygienically packed in the blue and white carton. (Remember too that you can buy Maw's baby bottles and Maw's anti-colic teats separately.)

From chemists only

MAW'S BOTTLES AND TEATS

S. MAW SON & SONS LTD., BARNET, ENGLAND. ESTABLISHED 144 YEARS. MAKERS OF ALL SURGICAL DRESSINGS, BABY GOODS AND VELFIN TOWELS

FOR CHEMISTS



DRUGS

SUNDRIES

Manufacturing Chemists

PILLS • TABLETS
PROPRIETARIES

HEAD OFFICE & WORKS: MANSFIELD ROAD, DERBY. Tel: 48266 (4 lines)
RANCH WAREHOUSE: GROSVENOR ST., ASHTON under LYNE. Tel: 2816 (3 lines)

Fine Chemicals **EVANS**

Bulk supplies of the following are available:

- 1 Glycerophosphates
- 2 Magnesium Trisilicate B.P
- 3 Aluminium Hydroxide Powder B.P.C

*Samples and quotations can be obtained from Home Sales
Department, Speke, Liverpool 19 or 50 Bartholomew Close, London, EC1*

EVANS MEDICAL SUPPLIES LTD

LIVERPOOL AND LONDON

Introducing



AND NOW I'M
A PIECE OF
SOAP

FLOOK, created by 'Daily Mail' artist Trog, has turned himself into many things; but this is the first time he has appeared as SOAP!

Manufactured
under special
licence from the
DAILY MAIL

FLOOK SUPERFINE TOILET SOAP

HERE is a novelty with a ready-made market in those countless thousands of homes where young and old look forward to the joyous adventures of Rufus and Flook each day in *The Daily Mail*. The lovable and adaptable Flook has now turned himself into a piece of fragrant, high-quality, triple-milled, pink-tinted, Lanoline-impregnated Toilet Soap! — and, in so doing, will bring new business to you.

On March 4th Flook Soap is to be launched at the *Daily Mail* Ideal Home Exhibition at Olympia (Stand 182, Ground Floor), which is visited annually by over a million people. From that day onwards Flook Soap publicity will be continuous.

Flook is so popular that Flook Soap should enjoy a ready demand right from the start. Be among the first to feature the most attractive soap novelty of the year — AND many years to come.

Order early and adequately from your wholesaler.

Sole Manufacturers

WM. TAYLOR & CO.

(EDINBURGH) LTD.

MCDONALD ROAD, EDINBURGH

Telegrams—“Taylor, Edinburgh”

Telephone—CENtral 5326

to retail at

1/-

**NOVELTY
DISPLAY
CARDS—**
struttied, made to
carry the appealing pack and
featuring a large,
eye-catching Flook
-on request



IF WOMEN LIKE THEM YOU *Will Like Them, To*

The reason why women like Silcot towels is simply this—they are very good towels. But more than that—they are very good towels at a very reasonable price.

What makes Silcot so good is the soft cotton-wool which gives women comfort in full measure. The stitched loops give them the greatest safety . . .

And with shrewd buying instincts women go on and on buying Silcot.

That's their side of the picture. What about yours? "If women like Silcot so much," you say, "surely it would be worth while stocking it. If it will give my

customers so much satisfaction it should bring me useful profits."

Exactly so. That's what many retailers are finding out. They are getting the benefit of the constant demand for Silcot—demand spurred on all the time by national advertising.

Yes, you should stock Silcot towels. Your customers will like them—which means that you will like them, too.

SILCOT

are Cotton-Wool Towels,
with soft knitted covers and stitched
loops, and selling at keenly competitive
prices.

SILCOT

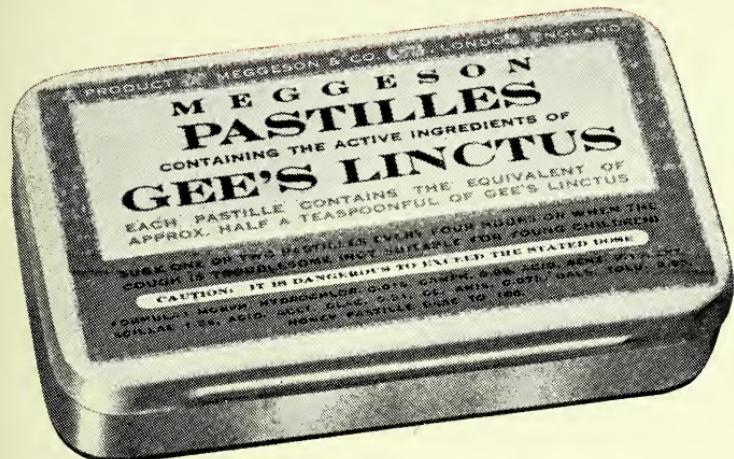
Sanitary Towels

Also Vensilla Soluble Towels and Silcot Sanitary Belts

MACDONALD & SON, LTD., HOPE MILLS, POLLARD STREET, MANCHESTER
Ardwick 1561-2

THE IMPORTANCE OF A

Name



THE HOUSE OF MEGGESON has specialised for generations in the production of Medicated Pastilles. Today, its reputation in this field is such that the name MEGGESON is valued by pharmacists, and by the public, as a guarantee of quality. This fact is of particular significance in the case of the recently introduced GEES LINCTUS PASTILLES, which carry the brand name MEGGESON on the label. The incidence of Purchase Tax is more than offset by the assurance of traditional quality which the brand name, MEGGESON affords to you, and to your customers.

PRICE TO YOU: 9/- PER DOZEN, PLUS 3/- PURCHASE TAX. RETAIL PRICE: 16/- PER TIN



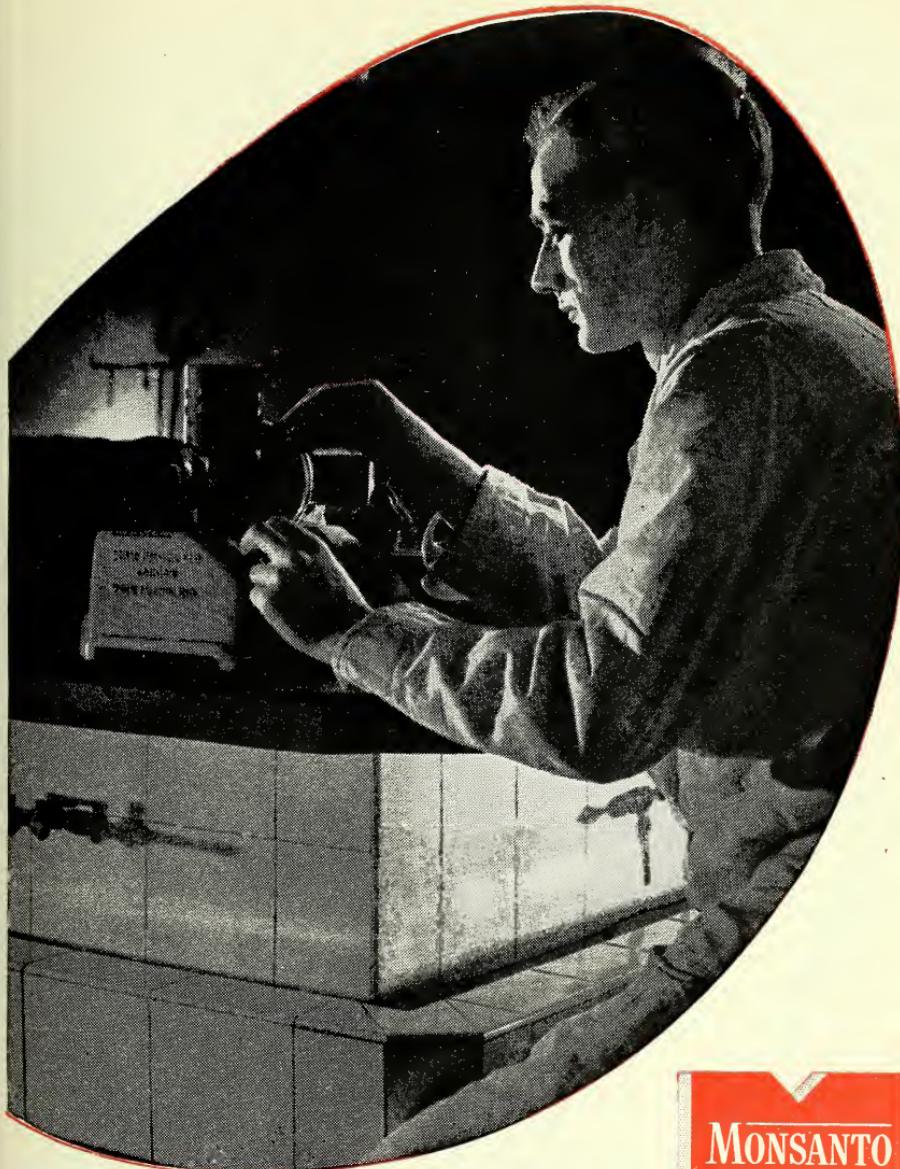
AN IMPORTANT LIST OF PHARMACEUTICALS

ASPIRGRAN
ACETYL SALICYLIC ACID B.P.
SALICYLIC ACID B.P.
SALICYLIC ACID (Technical)
METHYL SALICYLATE B.P.
SODIUM SALICYLATE B.P.
BENZOIC ACID B.P.
SODIUM BENZOATE B.P.
PHENACETIN B.P.
PHENOL B.P.
PCMIX
PCM
PHENOLPHTHALEIN B.P.
CRESANTOL 3
CRESANTOL 15

In the long ago days when the production of fine chemicals in this country was on a very limited scale, the price of phenacetin rose to 110/-d. per lb. and aspirin to 50/-d. per lb. This has not happened again.

Monsanto were prominent in the establishment of a British fine chemical industry after the first world war. They made phenacetin—and they remain the sole manufacturers in this country. They made aspirin—and they still make the bulk of the nation's production. They made methyl salicylate—and they are still the largest producers of a pharmaceutical the demand for which has greatly increased in recent years. They are potentially the largest producers of sodium salicylate. And they also make an important range of germicides and a number of associated products.

After thirty years of development, the list of basic fine chemicals is very important. Monsanto make these vital pharmaceuticals, they make them to the highest possible standards of purity, they make them in extremely large quantities, and they are always setting their sights a little higher.



MONSANTO
CHEMICALS - PLASTICS



CHEMICALS FOR EVERY INDUSTRY throughout the world

ALLINGTON HOUSE · LONDON · S·W·1

FOR HOME & EXPORT

Iodides
Glycerophosphates
Quinine Sulphate
Ephedrine
Hydrochloride
Sulphadiazine B.P.

★ We can
supply these
and many other
drugs advan-
tageously.



M.W.HARDY
AND COMPANY
(OVERSEAS) LTD

PINNERS HALL · GT WINCHESTER ST · LONDON · EC.2

TELEPHONE: LONDON WALL 7131

A new formulation of 'Cetavlon'—

the quaternary ammonium compound which is already well known to pharmacists as a bactericide and detergent.



Tubes of 50 grammes.

Retail Price 2/3 each.

'CETAVLEX' CREAM, containing 0.5% 'Cetavlon' (Cetrimide B.P.) in a water-miscible base, is now being introduced to the medical profession as a germicidal application for the control of infection in wounds and burns and the treatment of various infections of the skin.

A valuable addition to every First Aid Box, 'Cetavlex' Cream can be recommended with confidence for general antisepsis and healing—in hospital, in the factory, and in the home.

'CETAVLEX' CREAM

TRADE MARK

From your wholesaler or, in case of difficulty, apply to your nearest I.C.I. Sales Office—London, Bristol, Birmingham, Manchester, Glasgow, Edinburgh, Belfast and Dublin.

IMPERIAL CHEMICAL (PHARMACEUTICALS) LIMITED

A subsidiary company of Imperial Chemical Industries Limited Wilmslow, Manchester



an emergency case . . .

. . . diagnosed as an acute shortage of containers, threatens our supply lines. The only cure that can be prescribed at present is for you to store each empty container carefully after use, and until the C.R.S van calls. In this way we can keep up the supply of goods to you—thereby defeating the threat to the trade caused by the lack of material available for the manufacture of containers.



CONTAINER *recovery service*



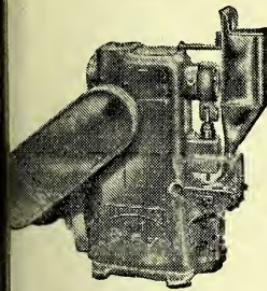
S.P.D. LIMITED,

3-5 SALISBURY SQUARE, LONDON, E.C.4

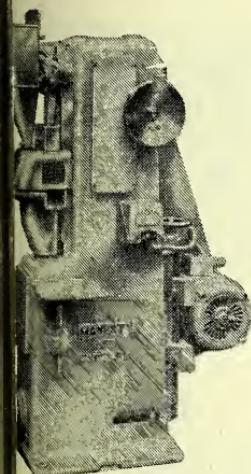
CRS 80-106

MANESTY

Tablet-Making Machinery



D.1 : Bench Machine.
-ilt-in starter ; Perspex
-table guards ; output
per minute.



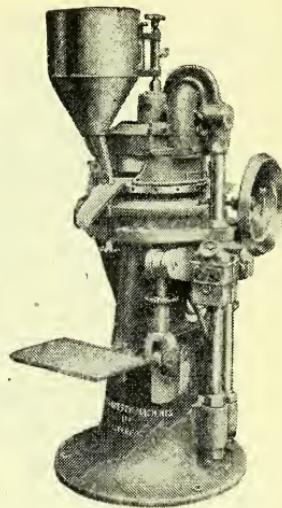
: Totally enclosed,
- contained drive ;
put 85 per minute.

There are indeed few problems, if any, in tablet compressing that cannot be solved with MANESTY Tablet Machines. Study the range of MANESTY Machines by sending for the latest illustrated literature and see how Manesty can help you.

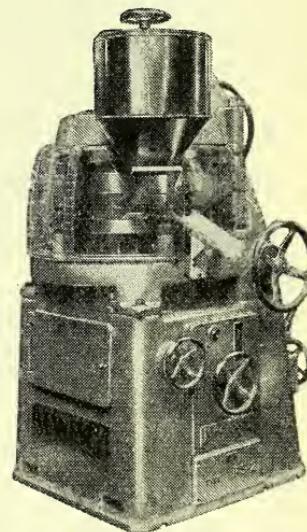


Have you this book?

“Tablet Making” — An authoritative volume by A. Little & K. A. Mitchell. 121 pp. 41 illus. 25 formulæ Cloth bound 15/- net post free.



D.3A : Rotary. Self-contained drive ; Fully guarded ; output 320 per minute.



R.S.2: Rotary. For diameters up to 1 $\frac{3}{8}$ " Clutch control; output 125 per minute.

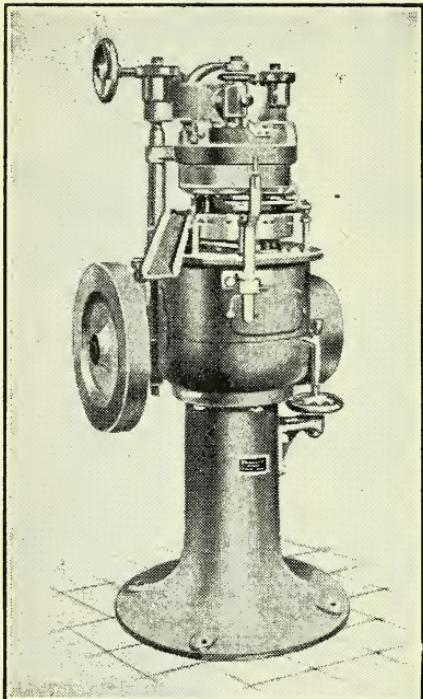
MANESTY **MACHINES**
SPEKE

TELEPHONE: Hunts Cross 1972

LET MACHINES • COATING PANS • GRANULATORS • MIXERS • PUNCHES AND DIES • AUTOMATIC WATER STILLS

LIMITED
LIVERPOOL 19

TELEGRAMS: Manesty, Liverpool 19



TABLET MACHINES

**Rotary
Machines**

**Single Punch
Machines**

**SPECIAL GEARED
MACHINES
HEAVY TYPE
ROTARY
MACHINES**

**TABLET
MACHINES**

**•
OINTMENT
MIXING &
GRINDING
MILLS**

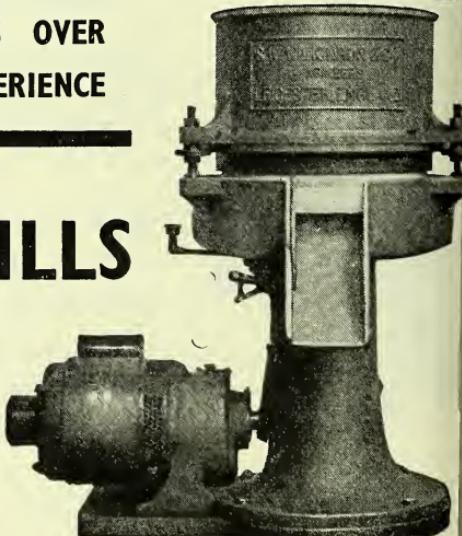
**EACH MACHINE INCORPORATES OVER
FORTY YEARS' ACCUMULATED EXPERIENCE**

OINTMENT MILLS

SUPER SPEEDY MILL

IN REGULAR USE ALL OVER THE WORLD

This Machine is a combined Mixer and Grinder and is used very successfully in the production of all kinds of Ointments, Tooth Pastes, Beauty Creams, Patent Foods, etc.



**S. W. WILKINSON & C^o. LTD. WESTERN RD.
LEICESTER**

Telephone: Leicester 21283

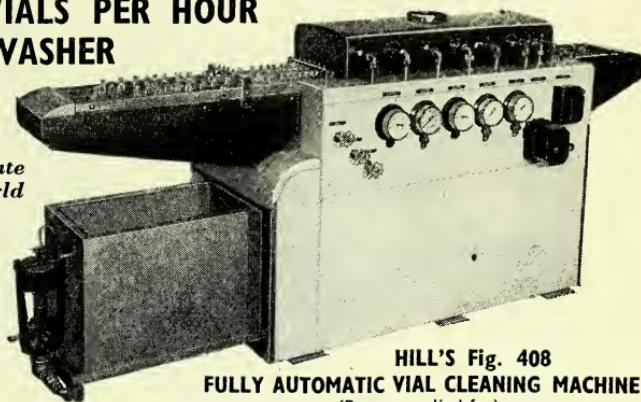
Telegrams: Wilkinson, Leicester 21283

THE ENGINEERS AND SPECIALISTS IN PHARMACEUTICAL MACHINERY

New !!

0,000 PENICILLIN VIALS PER HOUR FULLY AUTOMATIC WASHER

- The most up-to-date machine in the world

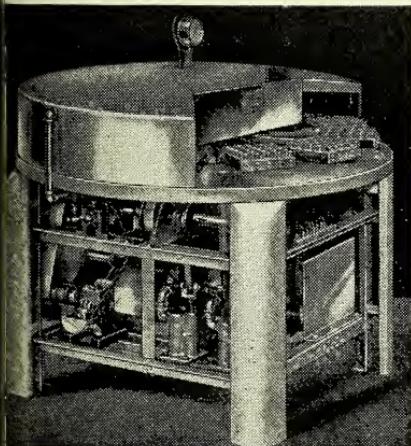


HILL'S Fig. 408
FULLY AUTOMATIC VIAL CLEANING MACHINE
(Patent applied for)

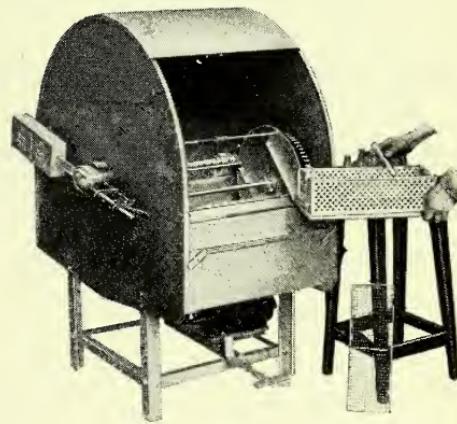
or new bottles. Can be arranged for almost any range of sizes of bottles, jars and vials. Made in 3 sizes:

1,000/1,500 bottles/hr.
2,500/3,000 " "
5,000/6,000 " "

The ideal machine for Laboratories. Test tubes, Petri Dishes, Universal Containers. Microscope Slides. Syringes. Vials, etc. etc.



HILL'S Fig. 393 GRANGEMOUTH
POWER ROTARY RINSING MACHINE



HILL'S Fig. 404 LABORATORY
GLASSWARE WASHING MACHINE

Write to the Manufacturers :

THE THOMAS HILL ENGINEERING CO. (HULL) LTD.

Dept. C.D. 247/249 BEVERLEY ROAD, HULL, YORKS

Tel.: HULL CENTRAL, 7517 and 17862

We engineer and make complete plant for the **SOAP and Synthetic Detergent INDUSTRIES**

Batch or continuous high pressure fat splitting

Continuous fatty acid distillation

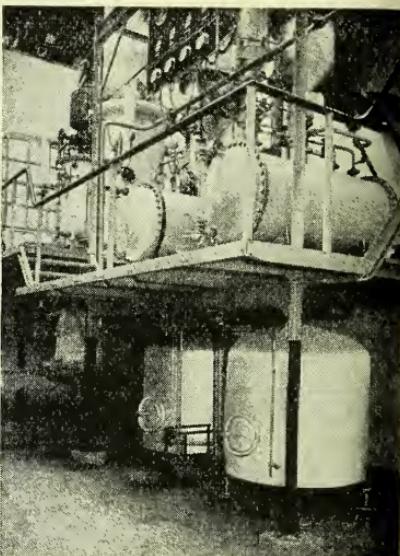
Glycerin Plant

Treatment of green olive oil

Fatty alcohol production

Sulphation

A Bamag Glycerin distillation plant recently started up in Portugal.



BAMAG LIMITED

The Chemical Engineers for Complete Installations
RICKETT ST., LONDON S.W.6 · Tel: FULham 7761 · Cables: Bamag, London

50/

The
'FILLMASTER'

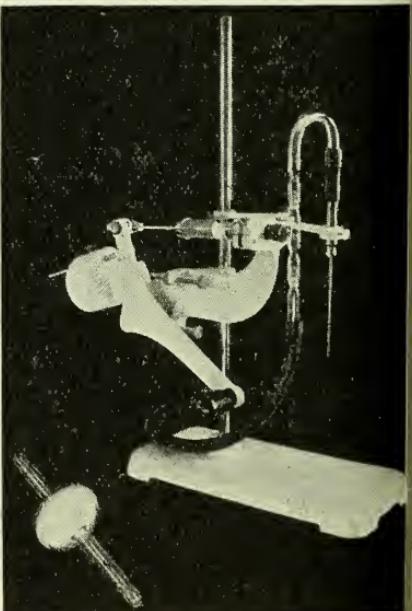
TRADE

MARK

**AMPOULE, BOTTLE & VIAL
FILLING MACHINE**

Simple, portable, hand-operated, it ensures dripless filling of pharmaceuticals, extracts, chemicals, perfumes, inks, etc., direct from bulk in drums into ampoules, bottles and vials of capacity of 1 c.c. to 40 c.c.

Up to 1,000 containers per hour can be filled with accurate dosage. This low-priced, precision built apparatus should stand in every Factory, whether large or small, where filling operations are carried out.



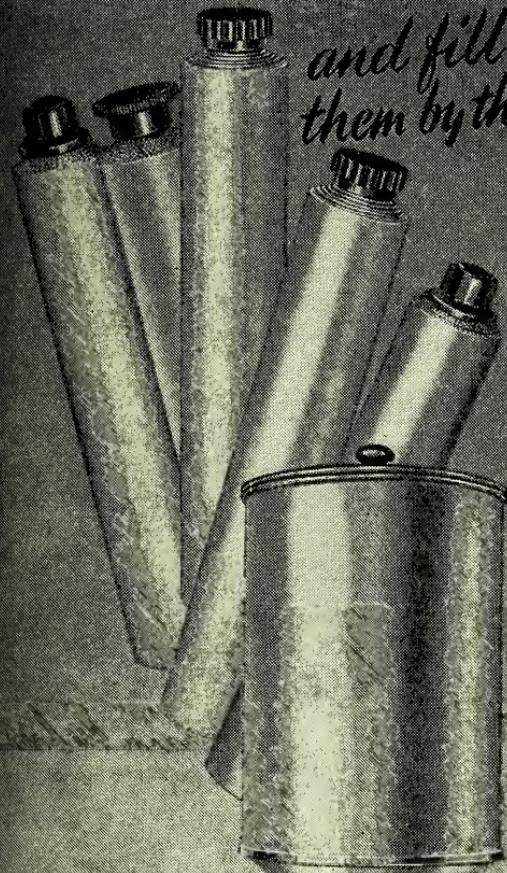
MARK-O-PRINT LIMITED

STATION PATH, PUTNEY BRIDGE STATION,
LONDON, S.W.6

Use **U·M·P** COLLAPSIBLE METAL TUBES

and fill them by the

U·M·P
COLLAPSIBLE
TUBE FILLING
UNIT



This unit consists of Tube Filling Machine, Tube Closing Machine and Tube Crimping Machine. Please write for particulars and descriptive leaflet.

*We are also moulders
of PLASTICS to the Trade
by injection and
compression methods*

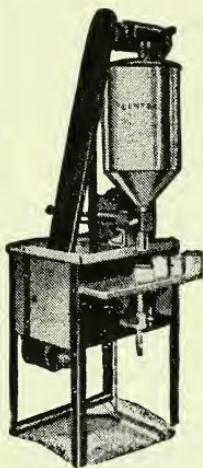


THE SIGN OF SERVICE
AND CO-OPERATION

UNIVERSAL METAL PRODUCTS LTD.

SALFORD 6 LANCS. Telephone: PENDLETON 1631-2-3
LONDON OFFICE: ARGYLE HOUSE, 29/31, EUSTON ROAD, N.W.1.

THE "CENTRAC" No. 5 NEW FULLY AUTOMATIC



POWER-DRIVEN FILLING MACHINE with or without stirrer

This machine discharges easily adjustable and accurate quantities of semi-solid or semi-liquid preparations into all shapes and sizes of containers.

It is built strongly and simply and can be supplied in acid-resisting metal.

Easy to operate and clean.

Made in 2 sizes:-

To fill up to 10 fl. ozs.

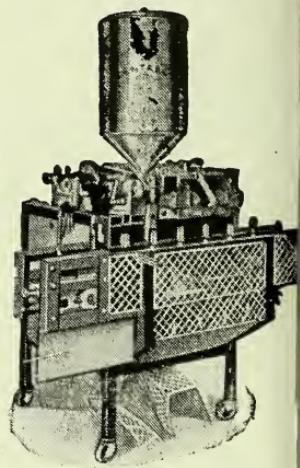
To fill up to 20 fl. ozs.

- ACCURATE
- CLEAN
- RAPID

Machine for Filling, Closing and Crimping COLLAPSIBLE TUBES. Ball Races used on all large bearing surfaces.

Suitable for Cosmetics, Glues, Colours, Pastes, and Liquids, etc.

(One operator only required.)



USE

"CENTRAC" Conveyors
for speedier productions

SOLE MAKERS:-

THE BANISTER STREET WORKS, LTD.

18a, b, c, DE BEAUVOIR ROAD, LONDON, N.1

Code word, "CENTRAMA"

Tel: CLISSOLD 874

Isomantle
REGD TRADE MARK

The illustration shows our latest developments :

ISOMANTLE
MULTISIZE
which heats several sizes and shapes of laboratory flasks ; and

ISOTAPE
a highly adaptable and fully insulated heating tape. Both these are controlled by an energy regulator with neon light. All Isomantles are obtainable through your laboratory furnisher.

Please write for leaflets to :
ISOPAD LTD., (Dept. C.D.1)
13/17 Rosemont Road,
London, N.W.3

THE

FLUID

AGITATOR- EMULSIFIER

LABORATORY MODEL
SL-A

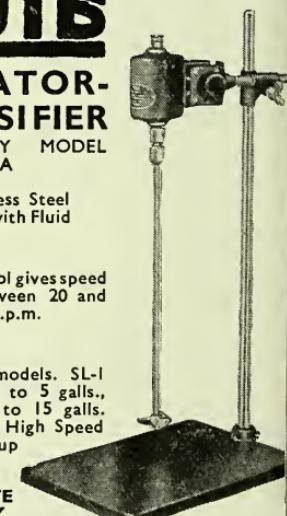
All Stainless Steel
Contact with Fluid

•
Built-in Control gives speed variation between 20 and 2000 r.p.m.

•
Also larger models. SL-1 for vessels up to 5 gallons, and SL-2, 10 to 15 gallons capacity. S.C. High Speed Agitators for up to 500 gallons.

**IMMEDIATE
DELIVERY**

FLUID EQUIPMENT CO. LTD.
(Dept. S.D.) 83 Seafield Road, London, N.
Phone: ENT 2565



**WE
WANT
TO
BUY:**

PROCESS PLANT

including:—Mixers . Filter
Presses . Hydro Extractors
Crushers and Disintegrators
Driers . Ball Mills . Jacketed
Pans . Glass Lined Vessels
Vacuum and Refrigeration
Plant

Please send full details to:—

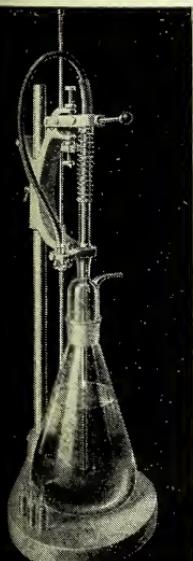


GEORGE COHEN
SDNS AND COMPANY LIMITED

Established 1834

STANNINGLEY, Near LEEDS . . . Telephone: Pudsey 2241 . . . Telegrams: Coborn, Leeds
SUNBEAM ROAD, LONDON, N.W.10 . Telephone: Elgar 7222/7 . Telegrams: Omnitools, Harles, London
And at Kingsbury (Nr. Tamworth) . Manchester . Glasgow . Morriston, Swansea
Newcastle . Belfast . Sheffield . Southampton . Bath

CD/521/HP32(WWB)



The **AUTOPACK** RANGE

FOR THE PHARMACEUTICAL INDUSTRY

including:—

Ampoule Cutting Machines
Washing Machines
Filling & Sealing Machines
Vial Feeding, Filling and
Capping Machines
Screw Cappers
Sachet Making Machines

Tablet Counters with
combined plant
Hand & Semi - Automatic
Machines for the small
user
Precision Weighing
Machines for Powders and
Dry Goods

buy from the original makers
The AUTOMATIC WEIGHING & PACKING MACHINE CO.

Caroline Street, Birmingham, 3

Grams: AUTOPACK, B'HAM

Phone: COLMORE 4082-3

Hand or Treadle
operated syringe

FAST . . .

FOOLPROOF FILLING

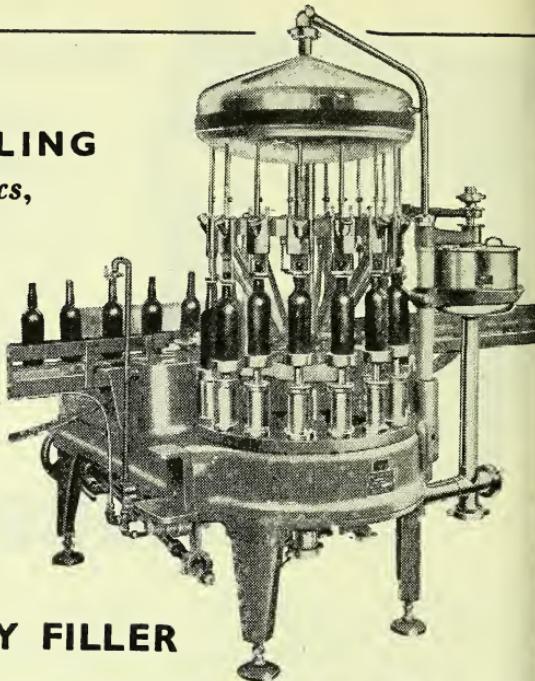
for Medicines, Antiseptics,
Lotions, etc.

- ★ Fully Automatic
- ★ Foolproof valveless vacuum-operation
- ★ 15 Heads—Output up to 100 bottles per minute
- ★ Full details on request

ALBRO

VACUUM - OPERATED

15 - HEAD ROTARY FILLER



ALBRO FILLERS & ENGINEERING CO. LTD., Wharf Road, Ponders End, ENFIELD, Middx.

**"AGITATING"
PROBLEMS
SOLVED!"**



PHONE :
BLAckfriars
7224 (4 lines)

Mitchell Eliminate those worries about fluid-agitation by installing Mitchell mixers. Our range includes models for handling liquids of every consistency in the quickest and most efficient way with the minimum of operational and maintenance costs.

L. A. MITCHELL LIMITED
37 PETER STREET • MANCHESTER 2

MX. 47a.

COLLAPSIBLE TUBES

Collapsible Tubes from Stock, in 1 gross lots and above, for Chemists and Laboratories who make their own creams and ointments.

Price list and samples upon request.
IMPAK WORKS (Mail Order Department)
Browells Lane, FELTHAM, Middx.
Telephone: Feltham 4211 (2 lines)

"CELLOPHANE" BAG

A FEW STOCK SIZES. ALL PER 1,000

1½ x 2½ ..	16/-	4 x 6 ..	45/-	5½ x 10 ..
3 x 3 ..	24/-	4 x 7 ..	50/-	6 x 6 ..
2½ x 4 ..	25/-	5 x 5 ..	47/6	7 x 9 ..
3 x 5 ..	35/-	5½ x 6½ ..	57/6	8 x 12 ..

Ask for complete list.
"CELLOPHANE" SHEETS FOR WRAPP.
Also ROLLS and SHEETS PLAIN and COLO.

Large stocks of WRAPPING, DISPLAY PAPERS.
Samples with pleasure

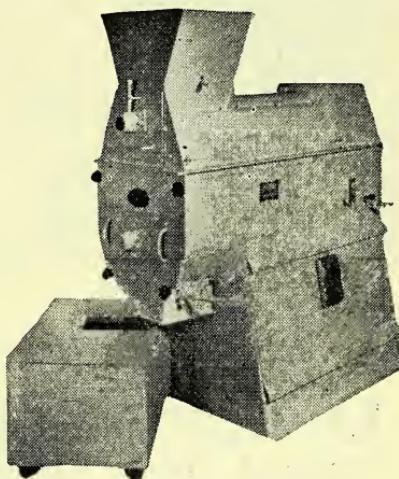
ALLANS 37 FARRINGDON STREET
LONDON E.C.4 Phone CENTRAL 55

NEWS for Manufacturers with POWDER PROCESSING PROBLEMS

IMPROVED MODERN RANGE OF MACHINERY

GARDNERS of Gloucester

considerable interest to Chemists and Druggists will be the announcement of a new range of Powder Processing Machinery redesigned to include every labour and time saving development of the past years. Of fabricated steel construction, consideration has been given to improved accessibility, easier cleaning out, maximum batch with a minimum floor coverage, low power consumption, with the Gardner reputation over four generations for trouble-free running and exceptionally long lifetimes. Keep up-to-date with modern developments by writing for the latest literature.



SIFTER/MIXER

The type 'L' range is of robust steel construction totally enclosed for dust-free operation with in-built motor and drives. Brush, sieve and agitator removed for cleaning without disturbing drive. Oil impregnated bronze bearings. Special metals can be incorporated and a variety of agitators are available. Dust-free delivery boxes can be supplied.

WM. GARDNER & SONS (Gloucester) LTD BRISTOL ROAD · GLOUCESTER

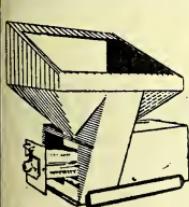
Telephone: 21261

LONDON: 1 Albemarle Street, London, W.1.

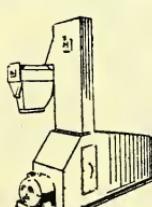
Grams and Cables: GARDNER GLOUCESTER

Telephone: GROsvenor 8206

SIFTERS



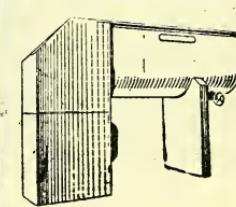
FEEDER/ELEVATOR/SIFTERS



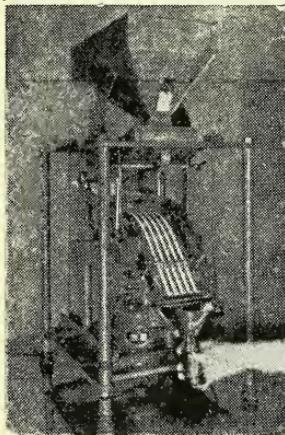
VERTICAL MIXERS



'RAPID' MIXER



NEW FINEX



TABLET COUNTING MACHINE

Fills into bottles, boxes and glass tubes at the rate of 1000-1500 tablets per minute.

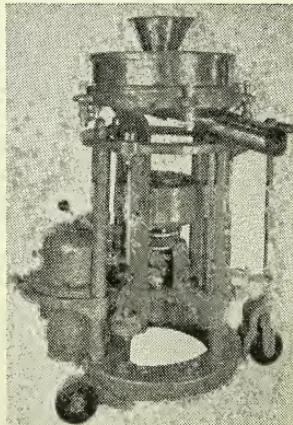
ALL DUST and DAMAGED TABLETS AUTO-MATICALLY REJECTED

IEVING and TRAINING SIMPLIFIED on the new VARIABLE SPEED MACHINE

Super Production through ultra fine meshes.

Completely mobile.

TRY THE MACHINE OUT IN YOUR WORKS AT OUR EXPENSE



RUSSELL CONSTRUCTIONS LTD.

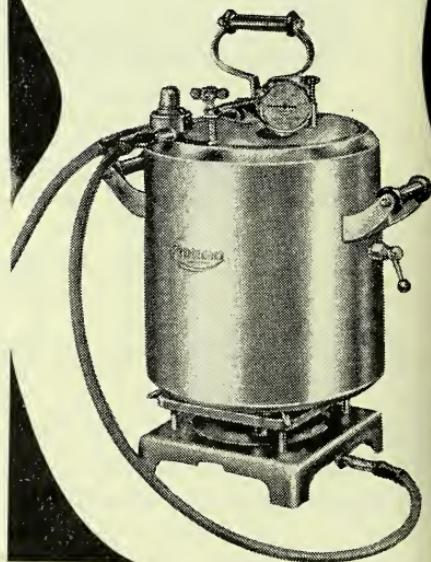
RUSSELL HOUSE, 8 ADAM STREET, LONDON, W.C.2

Telephone: TEMple Bar 0055-6-7-8-9

Telegrams: Russelcon Rand London

Cables: Russelcon London

A necessity in every laboratory...



...for complete sterilizin

THERMOSTATICALLY CONTROLLED in operation. Full instructions supplied with each appliance.

LIGHT AND HANDY—made from special Aluminium Alloy ECONOMICAL to operate and inexpensive. Cost £16. 16. 0. (excluding gas ring and flexible tubing)

Pentecon
AUTOCLOAVES

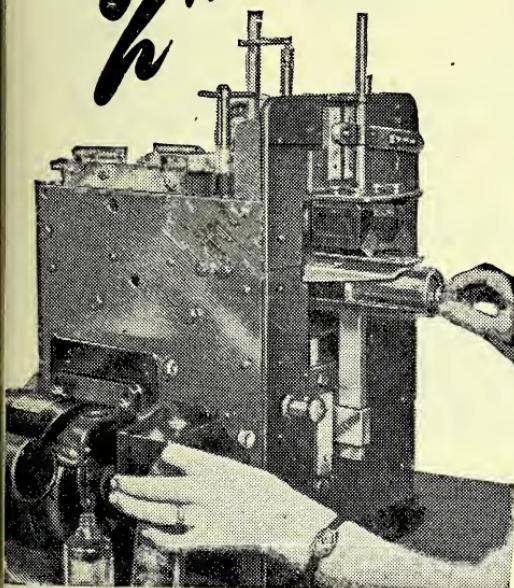
Write for leaflet to JOSEPH SANKEY & SONS LTD.
ALBERT STREET WORKS • BILSTON • STA

IN ADDITION TO THE WORLD RENOWNED 6-POINT LABELLER
THERE ARE

2 NEW

types of

**NEWMAN
LABELLERS**



Nº 1 (Model C)

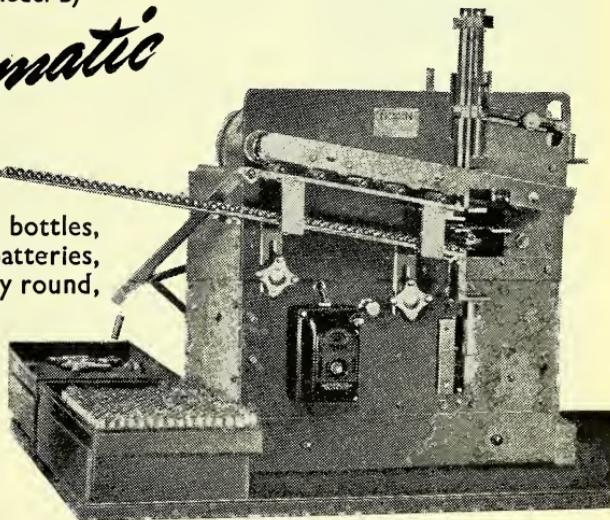
*Gums labels
completely*

Powder Boxes, Cartons and
other flat surfaces.

Nº 2 (Model B)

Fully Automatic

Labels cylindrical objects, bottles,
tubes, crayons, ampules, batteries,
etc. $\frac{3}{8}$ "- $1\frac{1}{8}$ " diam. completely round,
or with a gap or overlap.

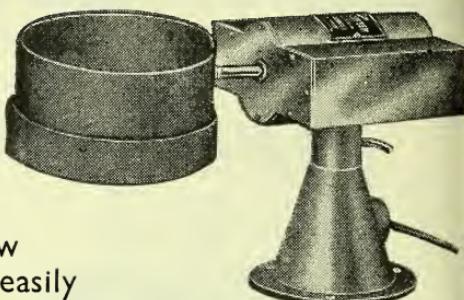


**D. TRAPOW & CO. LTD.
ENGINEERS**

(Dept. 4) 113 Regent's Park Rd., Chalk Farm, London, N.W.1 Phone : PRI 6688

PORTABLE ELECTRIC SIFTERS

For the rapid and efficient sieving of powders, liquids etc. Sieves easily changed. Low power consumption, light and easily cleaned, has no wearing parts and requires no lubrication.



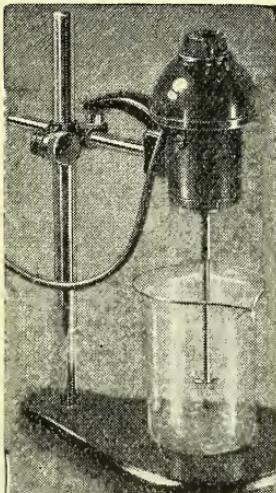
THE IDEAL MACHINE FOR PRODUCTION
OR ANALYTICAL SIEVING.

PODMORES
(ENGINEERS) LTD

SHELTON
STOKE-ON-TRENT

Telephone:
HANLEY 25870

Chemix Minor



Mixes quantities up to one gallon.

Patent variable speed control gives constant speed against load variation.

Handle is fitted on the motor to enable the unit to be removed instantly from the stand for ease of portability.

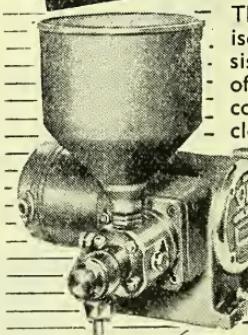
Send for illustrated leaflet and full details of this model and other CHEMIX Mixers.

F. & R. M. HARRIS (B'HAM) LTD

Chemical Engineers

17 DOE ST., BIRMINGHAM, 4

for EFFECTIVE
EMULSIFICATION



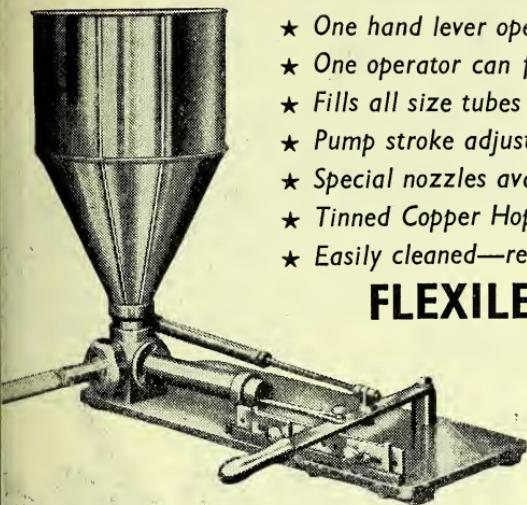
The new Q.P. Homogeniser ensures stability at a high standard of emulsification. Fully enclosed gear box. Easy to clean. Simple to operate. Low in cost. Illustrated is the model 10 g.p.h. Write now for full technical data, etc.

Q.P.

HAND BELT OR
MOTOR DRIVE

ORMEROD ENGINEERS LTD
SHAWCLOUGH • ROCHDALE

The *Flexile* HAND-OPERATED FILLING MACHINE



- ★ One hand lever operates pump and valve.
- ★ One operator can fill 25 to 30 gross of tubes per day.
- ★ Fills all size tubes from $\frac{3}{8}$ " to $1\frac{1}{4}$ " diam.
- ★ Pump stroke adjustable to give exact volume required.
- ★ Special nozzles available to fill jars and bottles.
- ★ Tinned Copper Hopper; gunmetal valve and pump.
- ★ Easily cleaned—requires little bench space.

FLEXILE METAL CO. LTD.

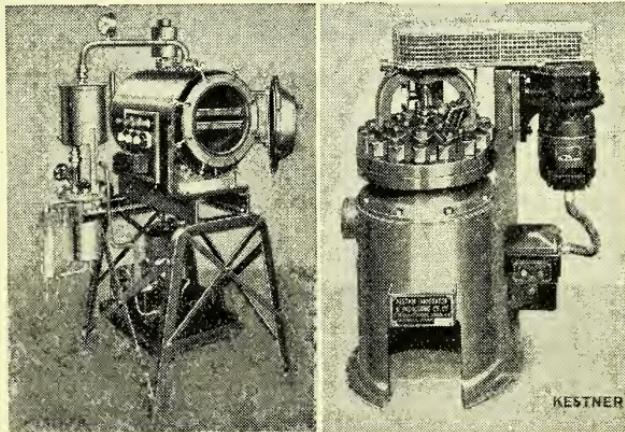
796 HOLLOWAY ROAD, N.19
ARCHWAY 1138

Price with one nozzle £36
Demonstration gladly arranged

Laboratory & Pilot Plant

Kestner
THE CHEMICAL ENGINEERS

A comprehensive range of standard small scale unit plants embodying the principal features of the well-known Kestner industrial plants is now available including: DRIERS—Spray, Film, Vacuum Oven and Shelf Types, Rotary Kilns and Tunnels. STILLS, Vacuum or Non-Vacuum. AUTO-CLAVES and REACTION VESSELS, STIRRERS and AGITATORS. Small Scale Pumps, Fans, Valves, Vessels, etc., for handling any corrosive gas or liquid.



Oil-Electric Heated Vacuum Drying Oven

High Pressure Stainless Steel Autoclave with motor driven Stirrer

Kestner's Chemical Engineers

KESTNER EVAPORATOR & ENGINEERING CO. LTD., 5 Grosvenor Gardens, London, S.W.1



6 Grand New Movie-paks

Available FEBRUARY 1952 in 16 mm. Sound, 16 mm. Silent and 8 mm.

Abbott & Costello

MIDGET CAR MANIACS

★ **BERMUDA HOLIDAY
UNDER
TROPICAL SKIES**

★ 'Globetrotter' Series
William Boyd as 'Hopalong Cassidy'
★ **PRAIRIE VENGEANCE**

SPORT SPELLBINDERS

'Sports Parade' Series

★ **PRAIRIE VENGEANCE**

FAMILY ANTICS

'Star' Series

★ **PRAIRIE VENGEANCE**

★ ★ ★ ★ ★ ★ ★ POST COUPON TODAY ★ ★ ★ ★ ★ ★ ★

★ **G.B. FILM DIVISION**

(Movie-Paks) Aintree Road,
Perivale, Greenford, Middlesex.

Name

Address

★ Please send full details of the 6 new
MOVIE-PAKS

.....

★ Please send a complete MOVIE-PAKS
CATALOGUE

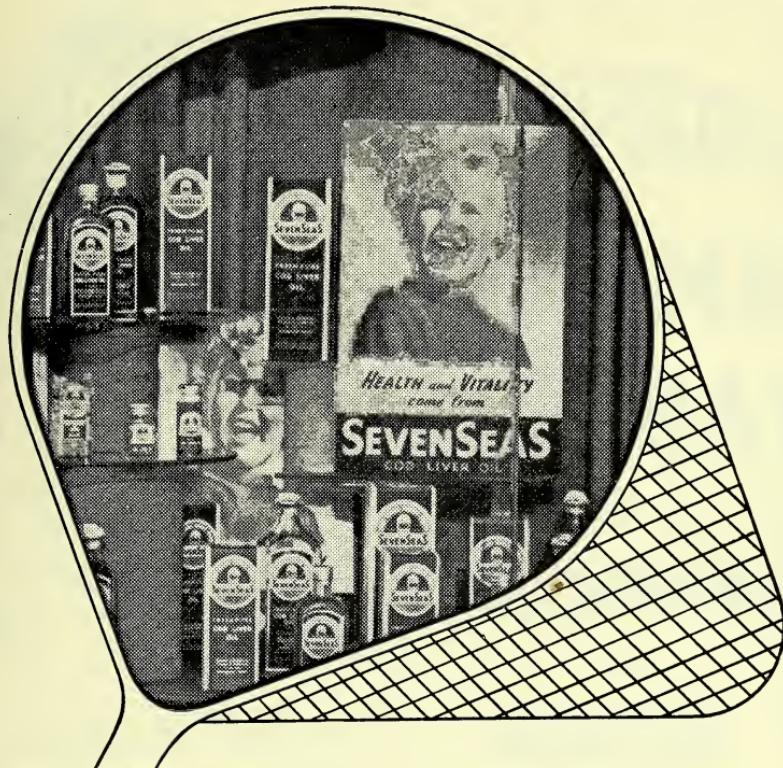
.....

★ G.B. EQUIPMENTS LTD. A Company within the J. Arthur Rank Organisation

CD. 2

Wilson

**NOW! OVER 100 MOVIE-PAKS
to buy and show when you please**



This brings them in!

No women—and few men, for that matter—can resist the sturdy, laughing youngster on this striking SevenSeaS showcard.

Let him work for *you*: give him a prominent place in your window, backed by a strong display of SevenSeaS products, and watch how this will bring customers into your shop and turn their interest into sales.

SEVENSEAS

PURE COD LIVER OIL

British Cod Liver Oils (Hull & Grimsby) Limited, St. Andrew's Dock, Hull.

GLANOID

AMISYN TABLETS

combining

ACETOMENAPHTHONE

and

NICOTINAMIDE

for

CHILBLAINS

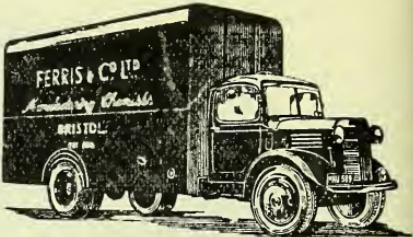
•

**EXEMPT FROM
PURCHASE TAX**

THE ARMOUR LABORATORIES
(ARMOUR & COMPANY LTD)

LINDSEY STREET, LONDON, E.C.1

Telephone: Clerkenwell 9011
Telegrams: "Armosata-Phone," London



REGULAR ROAD DELIVERIES

*In the West of England and
South Wales Areas*

*The House in the West for all
Chemists' Supplies*

Send us your orders for prompt and
careful attention.

**FERRIS & COMPANY LTD.
BRISTOL**

Manufacturing and Wholesale
Chemists

Telephone:
BRISTOL 21381

Telegrams:
FERRIS, BRISTOL

5th Edition

A Textbook of Pharmacognosy

By T. C. Denston, B.Pharm. (Lond.), F.R.I.O.
Ph.C. Thoroughly revised for the new edition
this well-known textbook now includes descriptions
of many more drugs, together with
new material on drug constituents and evaluation.
It accords throughout with the British
Pharmacopœia, 1948, and the British
Pharmaceutical Codex, 1949. A reliable textbook
for all candidates for the Chemist and Druggist
Qualifying Examination. 637 pages. 11
illustrations. 45/- net.

"Can be confidently recommended." —W.
HOWARTH in NATURE.

PITMAN
Parker St., Kingsway, London, W.C.



*A jar used by
Pepys' apothecaries*

It was in 1823, very shortly after Pelletier had isolated Quinine, that Luke Howard, assisted by his partner Joseph Jewell, extracted Quinine from Cinchona Bark and firmly established its manufacture on a commercial scale in this country. For nearly two centuries before Pelletier, the anti-malarial properties of Cinchona Bark had been known. In fact, Howards, who continue today in the forefront of the world's Quinine manufacture, possess in their museum this drug jar, labelled Ext: Cort: Peru (Extract of Cinchona Bark), dating back to the days of Pepys and considerably older even than the Howards' tradition for the production of fine chemicals.

Safe as **HOWARDS**

Bromides, Citrates

Iodides, Iron Salts

Bismuth Salts

Sodium Bicarbonate



Lactates, Aspirin

Salicylates, Ethers

Quinine Salts

Tablets—etc.—etc.

HOWARDS & SONS LTD · ILFORD near LONDON

ALL BRITISH PRODUCTS

Nipa ESTERS

ALWAYS RELIABLE



NIPAGIN
NIPASOL
NIPASEPT
NIPABUTYL
NIPABENZYL

PRESERVATIVES
AND ANTISEPTICS

available in both
Purified, standardised
and Technical Grades
and as
Sodium Compounds

PROGALLIN (A and P) ANTIOXIDANTS
available in both Purified, standardised
and Technical Grades

PHENOXETOL THE SPECIFIC AGENT
against Gram-negative Organisms

Consult the Nipa

Laboratories Service Department regarding
your manufacturing problems and requirements
for Preservatives, Antiseptics and Antioxidants

**NIPA LABORATORIES
LIMITED**

TREFOREST TRADING ESTATE nr. CARDIFF
TEL • TAFFS WELL 128

Sole Distributors for the United Kingdom
P. SAMUELSON & CO.

Roman Wall House, 1 Crutched Friars, London, E.C.3
Telephone: Royal 2117/8

STANDARD SYNTHETICS L I M I T E D

Actual distillers of Essential Oil
Manufacturers of Aromatics, Perfum
Bases and Flavours.

We specialise in Cinnamon Bark Oil
Juniper Berry Oil, Winter
green Oil, Eucalyptol
French Lavender Oil, Ter
peneless Lemon Oil, Rose
Perfumes, etc.

**76 Glenthham Rd., Barnes
London - - S.W.13**

Telephone: -Riverside 3616

JKL

Agar Agar
Aloes
Cantharides
Cascara Sagrada
Cochineal
Condurango Bark
Ergot of Rye
Grindelia Herb
Liquorice
Lobelia Herb
Papain
Peppermint Oil
Sabadilla Seed
Sarsaparilla
Wild Cherry Bark
Witch Hazel Leaves
and all other Botanicals,
Gums, Waxes, Essential Oils
and Spices

JOHN KELLYS (LONDON) LTD.

Gresham House, 24 OLD BROAD STREET, E.C.2

Telephone: London Wall 4882, 6585, 6586

Telegrams: "Ergotine, Stock, London"

Branches in New York and Hamburg



In the balance

The dispenser knows how much depends upon scientific exactness—on complete assurance of purity and constant standards. All will ultimately be 'weighed in the balance'..... for he knows how faithfully he can rely on the products of H.E. Daniel Ltd., to enhance his reputation.

H·E·DANIEL LTD



MANUFACTURERS, DISTILLERS AND EXPORTERS OF
ESSENTIAL OILS, FLAVOURING ESSENCES, PERFUME COMPOUNDS,
CRUDE DRUGS, BALSAMS, GUMS, SPICES, AROMATIC CHEMICALS,
FINE CHEMICALS AND MEDICINAL EXTRACTS

ST BERNARD WORKS STONEY LANE UPPER NORWOOD LONDON SE19
TELEPHONE LIVINGSTONE 2287 9 TELEGRAMS 'HANSEDA' LONDON

TUNGLOSE
BRAND
PURE MEDICINAL
POWDERED GLUCOSE
(Dextrose Monohydrate)

Ask your Wholesaler



**TUNNEL GLUCOSE
REFINERIES LTD.**

329 High Holborn, London, W.C.1

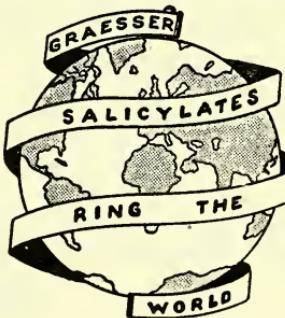
Telephone : Chancery 6524 (6 lines)

Works : Tunnel Avenue, Greenwich

THE
SYMBOL
OF



QUALITY
AND
SERVICE



*Aspirin Salicylates
and Allied Products*

Graesser Salicylates Ltd.
SANDYCROFT NEAR CHESTER
Phone: HAWARDEN 2125 Grams: Quality Chester

"Eagle" Brand Chemicals

B.P.

PRECIPITATED

SULPHUR

PHOTOGRAPHIC
H Y P OAND
S U L P H I T E

— CRYSTALS and ANHYDROUS —

EPSOM SALTS

GLAUBER SALTS

ARSENICATE OF LEAD

Enquiries Invited

JOHN RILEY & SONS, LTD

Chemical Manufacturers

HAPTON near BURNLEYTelegrams:
"Rileys Hapton"Telephone :
Padiham 290/1**PUGET OLIVE OIL**Shipped by Ets. Adolphe Puget,
Marseilles, France (Est. 1857).Your enquiries are invited for all grades
of edible, pharmaceutical and industrial
olive oil in bulk and retail packages.

Sole Agents in U.K.

R. H. AMAR & Co. Ltd.

6 HOLBORN VIADUCT, LONDON, E.C.1

Telephone: Central 3608

BIG SALES from this
NEW BOTTLEgood
lookingshaped
for
safetynatural
grease
solventpowerful
germ
killerkind to
delicate
skins

This first class selling line now has the additional appeal of the new safety shape bottle. The strong advertising campaign in the National and Provincial press and magazines with the National Poster campaign ensures big sales—stock up NOW with—

DRUMMER PINE**DISINFECTANT**Made by
WM. EDGE & SONS LTD., BOLTON

A24

QUATERNARY AMMONIUM COMPOUNDS

Now available commercially
LEDA CHEMICALS LTD., are pleased to announce that they are now manufacturing the following quaternary ammonium compounds in commercial quantities:—

Lauryl Pyridinium Chloride • Lauryl Pyridinium Chloride (broad cut) • Cetyl Pyridinium Chloride
Lauryl Dimethyl Benzyl Ammonium Chloride
Cetyl Dimethyl Benzyl Ammonium Chloride
Stearyl Dimethyl Benzyl Ammonium Chloride

Mixed Alkyl Dimethyl Benzyl Ammonium Chloride (Benzalkonium Chloride) also available

This particular quaternary is being distributed by Bayer Products Ltd., Africa House, Kingsway, London, W.C.2., to whom enquiries for Benzalkonium Chloride should be addressed.

LEDA CHEMICALS LTD., Wharf Rd., Ponders End, Middlesex.
Tel. No.: HOWard 2231 Tele. Address: Ledakem, London

WE WANT**MILLAMALT**

Sole Manufacturers: JEFFREYS.

MILLER & CO. LTD., Leyland Mills,

Wigan (London Dept. 19 Brookside Rd. N.19) BECAUSE OF THE BUTTERSCOTCH FLAVOUR

FRANCO-BRITISH GLASS CO. LTD.*For Ampoules & Vials.*15/17 KING STREET, ST. JAMES'S
LONDON, S.W.1
Telephone - - TRAfalgar 4181

VACCO*Vacuum
Vessels*Wide mouthed
2 pint Vacuum Jar
Model J.1012 pint
Vacuum Flask
Model Q.F.1 pint
Vacuum Flask
Model S.C.1 pint Plastic
Vacuum Jug
Model P.J.

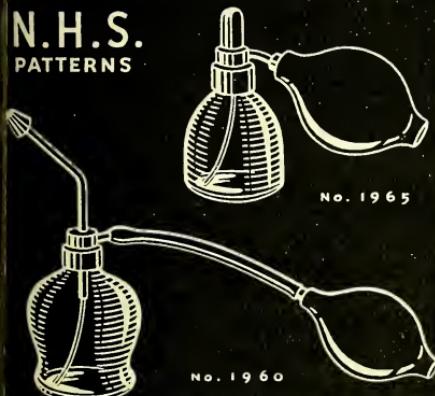
All the models in our range are fitted with VACCO refills of extra high thermal efficiency. This ensures minimum temperature change — hot contents keep piping hot and cold contents keep icy cold.

MADE IN ENGLAND

Enquiries to:

VACCO LIMITEDGrosvenor Gardens House,
Grosvenor Gdns., London, S.W.1.

ENTIRELY BRITISH MADE

N.H.S.
PATTERNS

SAMCO Atomisers and Sprays differ from types in general use in that each model is a Scientific Instrument specially designed to handle all types of spraying compounds without the necessity to adjust the nozzle of the instrument in any way.

Each instrument is manufactured and assembled to mathematically exact limits thereby assuring uniform performance.

Materials of the finest quality only are used and all components in direct contact with fluids are made of pure nickel, which is impervious to every known substance used in medical prescriptions.

All components are heavily chromium plated.

All SAMCO models are pressure operated, thus ensuring complete atomisation.

ACTUAL MANUFACTURERS

PHONE: EUSTON 1757 & 5514

S. MURRAY & Co. Ltd.

45 ST. PANCRAS WAY, LONDON, N.W.1

GUMSTRIP SEALING TAPE
ALSO
IN SHORT SUPPLY



**BY USING THE RIGHT LENGTH
IN THE RIGHT PLACES**

● **THE AUTOMATIC CUT**

By using one of the Camberwell Beauty Sealing Machines you avoid tape wastage. The Automatic Cut gives you the required length of Gumstrip correctly moistened for any carton or package.

● **THE MOISTURE CONTROL**

For a good stick it is essential that Gumstrip should have the correct amount of moisture. The moisture control unit ensures an even moisture distribution, because the water level is automatically maintained.

ISSUED BY

SAMUEL JONES & COMPANY LTD.
NEW BRIDGE STREET, LONDON, E.C.4



≡
GNOME
≡

**The
ALPHA
DE LUXE
ENLARGER**

2½ x 3½

★

**MANY NEW
FEATURES**

from

£15·7·6

including lens and tax

Write direct to
manufacturers
for details



GNOME PHOTOGRAPHIC PRODUCTS LTD.
354 CAERPHILLY ROAD, CARDIFF

Safety tells



**Safety sell
with mother**

Mothers are agog at
the BESCO. At last
shampoo eye shield
so effective...so chea
so simple to use

NATIONALLY ADVERTISED

Trade buy at 24/-
doz., plus 33½% F.

3·9
RETAIL PRICE

BESCO shampoo
EYE SHIELD

Sample on request to:—

BESCO CO., Hill St., Rochdale, Lancs.

'ACME' THE EVER POPULAR AND RELIABLE VACUUM FLASK

in
assorted
colours

RETAIL prices:

1 pt. — — 5/6
2 pt. — — 10/11



JUG SET

Retail 19/9

JUG only

Retail
14 / 11



ACME VACUUM FLASK CO. PHOENIX WORKS, BRIDGEND, GLAM.

ONDON ADDRESS:—BALFOUR HOUSE, 119-125 FINSBURY PAVEMENT, E.C.2

SOL-TAN

Relief from Pain!

'SOL-TAN' "CLASSIC"

Cat. No. E.M. 30

Dual purpose INFRA-RED and RADIANT HEAT apparatus. Simple in construction, this lightweight floor model is attractively finished in two colours: Ivory and Eau de Nil with Chromium plated fittings. Supplied against Doctor's certificate or for Professional use complete with Treatment instructions.

Price £9.9.0 Tax Free

Spare Burners 33/- each

Fully illustrated Catalogue gladly sent on request
'Sol-Tan' Marketed for Home and Export by:—

Indoor Sunshine!

'SOL-TAN'

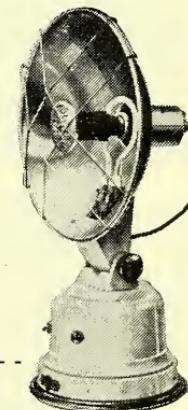
"TRIPLEXRAY"

100/23 T.M.

Quartz Burner, Ultra Violet and Infra Red or Radiant Heat Operated on A.C. only 200/250 volt. Only supplied against Doctor's certificate or for professional use.

£19.13.3

Complete Tax Free



THE LONDON COMMERCIAL ELECTRICAL STORES LTD
20-23 CURSITOR STREET, E.C.4. — CHANCERY 6488/9

**TO RECORD
CASH SALES**

get a

GLEDHILL

*British Made Cash Registers and
Tills for every type of business*

G. H. GLEDHILL & SONS
LIMITED
28, Trinity Works, HALIFAX



WEIGHING

The first months count
most where baby's
weight is concerned.
Mothers, nurses, clinics
and hospitals put their
trust in SALTER.

SALTER *baby weighe*
Established 1760

GEO. SALTER & CO. LTD., WEST BROMWICH

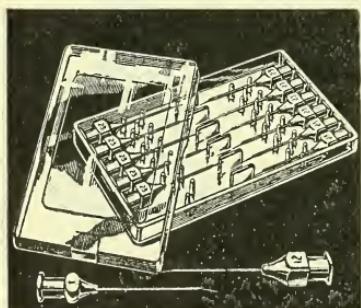
M-W. 235

Importers of
fine Chemicals &
Pharmaceuticals

HCL

HALEWOOD CHEMICALS LTD.
111-115 EASTBOURNE MEWS, LONDON, W.2
AMB 4198 & 5457

SURE-SELLING STOCK
OVER 150 YEARS REPUTATION
KEARSLEY
THE ORIGINAL
WIDOW WELCH'S FEMALE PILLS
9d. BOX PROFIT by ordering 1 doz.
3/3½ size. Bonus given on ev.
dozen (13). It pays to push this
C. & G. KEARSLEY LTD
71 DARTMOUTH RD., LONDON, S.1
Established 1787 In the Reign of King George III



ALL SIZES

PROMPT DELIVERY
STAINLESS STEEL
HYPODERMIC and SERUM NEEDLES
BEST GERMAN MANUFACTURE

ALSO, PNEUMO-THORAX, BLOOD,
LUMBAR-PUNCTURE, ANÆSTHETIC ETC

Exclusive Distributors:—

WHITLEY & CO. (MANCHESTER) LTD
19a CORPORATION ST. MANCHESTER 4
Phone: BLA 4340 Grams: Raven Manchester

Barber

THE BETTER HEALTH LAMP

DESIGNED AND PRODUCED UNDER RIGID LABORATORY CONTROL

Built from the highest quality materials by expert craftsmen.

Generous Trade discounts.

No "After-Sales" Worries.

A COMPREHENSIVE RANGE OF HEALTH LAMPS IS AVAILABLE, FOR INSTANCE:

MODEL 315. The most popular of the infra-red and luminous heat Health Lamps. No P.T.

List Price £5.5.0

MODEL 325. The professional type Health Lamp. infra-red and luminous heat combined. Extra large reflector for irradiation of the whole trunk. No P.T.

List Price £8.10.0

MODEL 350. An excellent and most effective infra-red and luminous heat Health Lamp. Obtainable without medical certificate.

List Price, including P.T. £7.10.0

MODEL 375. The ultra-violet Health Lamp of renown. The most successful Barber model. Lowest consumption, highest efficiency.

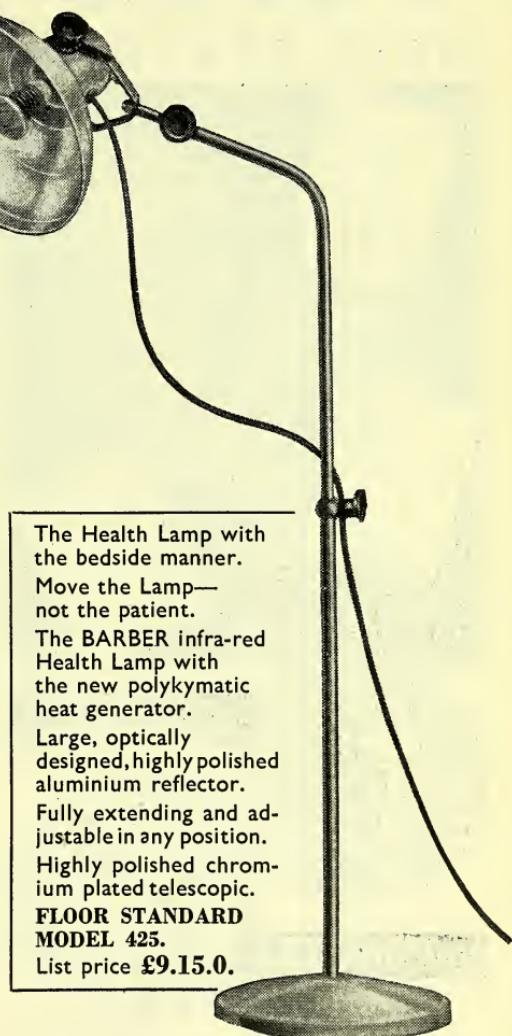
No P.T. List Price £16.10.0

MODEL 293. The original combined Health Lamp. Ultra-violet and infra-red in one model. Unsurpassed in value and therapeutical effect.

No P.T. List Price £27.5.0

All infra-red Health Lamps are fitted with the new polykymatic heat generator.

Technical literature on request.



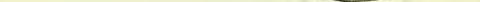
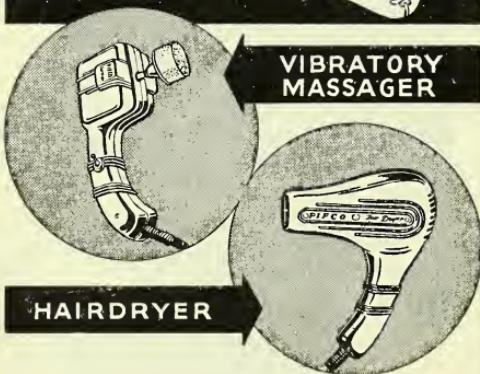
BARBER ELECTRICAL SERVICES LTD

LEACH STREET, BIRMINGHAM, 16

Telephone: EDGbaston 3511-12

**RIGHT IN PRICE!
PERFORMANCE!
AND PROFIT!**

PIFCO
BEST SELLERS



Write for fully illustrated Catalogue
of exclusive Pifco Specialities

PIFCO, LTD.
WATLING STREET, MANCHESTER, 4.

1d. saves £££

A strip of Transoprint seals your packages
securely against pilferers and makes
tampering impossible. Experience proves it!

TRANSOPRINT
STOPS PILFERING

better than an insurance policy
— it saves your goods

Write John Gosheron & Co Ltd Gayford Rd London W.
or telephone SHEpherds Bush 3326

GOSHERON TAPE
SERVE INDUSTRY EVERYWHERE

*'Health Insurance
demands*



HAROLD WESLEY LTD
HARLEY MILLS
LONDON N.W.10

DEGA

BRAND

Chemicals & Drugs

ADRENALINE	PANCREATINE
AMIDOPYRINE	PAPAIN
ARECOLINE HYDRO-	PEPSIN
BROMIDE	PHENAZONE
BENZOCAINE	PIPERAZINE
CHLORAL HYDRATE	PROCAINE
CREOSOTE	SULPHONAL
DAIATASE	THEOPHYLLINE
EPHEDRINE	

Essential Oils

Aniseed, Bay, Cajuput, Juniper,
Peppermint, etc.

Terpeneless Oils and Isolates

We also manufacture a wide range of
Floral and Speciality type bouquets for all
classes of trades.

CHAS. ZIMMERMANN & CO. LTD.

DEGA WORKS

WALMGATE ROAD, PERIVALE, GREENFORD, MIDDLESEX

Phone: *Perivale 9121 (four lines)*

Grams: *Acidolan, Greenford, Middlesex*

Two good
"SAMARITAN"
lines



LANOLIN CREAM

OLIVE OIL



Will enhance your reputation
and bring repeat sales

THORNTON & ROSS LIMITED

LINTHWAITE LABORATORIES

HUDDERSFIELD

 **TABLETS** MANUFACTURED
to Customers' formulæ

MODERN PLANT • PROMPT DELIVERY
QUALITY AND ACCURACY
GUARANTEED
B.P., B.P.C. & N.F. tablets stocked

G.O. WOODWARD & CO. LTD.

Macaulay 4375 146 LARKHALL LANE • CLAPHAM • LONDON • S.W.4

A.....

ESTABLISHED 1793

**ATKINSON & BARKER'S
INFANTS' PRESERVATIVE**

The Best and Safest Infants'
Medicine of 150 years' standing

Does not contain any Scheduled Poison

ROBERT BARKER & SON, LTD.
13 WESLEY ST., C. on M., MANCHESTER

dott. INVERNİ & DELLA BEFFA—99, Via RIPAMONTI-MILAN (ITALY)

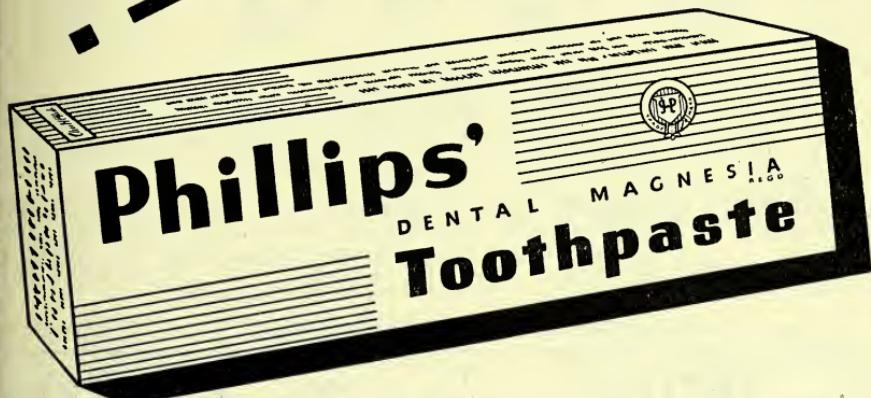
MANUFACTURERS OF

L-ASPARAGIN

COLCHICIN—MALE FERN EXTRACT
GARLIC OIL, DRUG EXTRACTS

Samples and quotations on request

SPECIAL ANNOUNCEMENT



PRICES UNCHANGED

RETAIL 1/6 & 2/3
INC. TAX

TRADE 10/8 & 16/4 DOZEN (TAX EXTRA)

**Our National Advertising will feature prominently
the retention of existing prices**

THE CHAS. H. PHILLIPS CHEMICAL CO. LTD., 179 ACTON VALE, LONDON, W.3.

SURE DEATH TO SLUGS

with the original **META**

EVERY Gardener needs **META**

**META as a
SOLID FUEL**

META gives intense heat, is impervious to damp and perfectly safe to use. It does not deteriorate in storage. META is always in popular demand.

META attracts slugs.

A single crumbled tablet, mixed with bran meal, lawn mowings or dried tea leaves laid overnight in small heaps **POSITIVELY DESTROYS** them. Morning finds them dead in their dozens.

SAFETY Preparations of this type can be injurious to health taken internally. META is the only one which is specially treated to render it unpalatable to children by giving it a bitter taste.

Trade enquiries to any wholesale factor

Packed in 10's 1/9, 20's 3/3, 50's 7/6

Wholesale enquiries to : **M. P. TOULSON LIMITED**, 18 Chequer Street, St. Albans, Herts.

Dr. Williams Pink Pills

Every Chemist needs to keep a stock of Dr. Williams Pink Pills. Year in and year out this reliable iron tonic goes on selling, bringing you a sure steady profit. Packets retail at 1/9 and 4/- including tax, and you can tell your customers the large size contains nearly three times as many pills as the small.

Write for details of advantageous Trade Parcel terms.

Add these also to your Orders —

PINKETTES

A reliable vegetable laxative specially made in tiny pilule form for easy taking. Inclusive retail price 1/9 — your supply can be included in the Pink Pills parcel terms.

Bablets

Infants' laxative and calmative, made as a crushable tablet for accurate dosage. Packets 1/9 — available in Pink Pills parcel terms.

THE
CHEMIST'S
STAND-BY



G. T. FULFORD CO. LTD. (of Canada), 8 Royston Park Road, Hatch End, Middlesex

Announcing

NEFCO

(REGD. TRADE MARK)

NITROFURAZONE

new preparation of outstanding interest to all poultry keepers



The introduction of 'Nefco' is of first importance to all poultry keepers because it offers a most effective treatment of COCCIDIOSIS at a really economical cost.

Nitrofurazone has been widely used in America, both for the control and for the prevention of coccidiosis, and 'Nefco' is the British made preparation of this valuable new drug which has been thoroughly tested in this country by leading research workers. They have shown that effective control can be obtained with extremely low concentration of this drug in the food, and there are no signs of toxicity at therapeutic levels, so there is no interference with the rate of growth.



'Nefco' is now available to the poultry industry in the form of a premix which is simply incorporated in the food. Not only is it very easy to use but it is more economical. The cost works out at roughly 1½d. per chick.

'Nefco' is issued in cartons as follows:

**Small size 3½-oz. approx., trade price 23/- doz.;
retail price 3/6 each, including tax.**

**Large size 14-oz. approx., trade price 78/6 doz.;
retail price 12/- each, including tax.**

'Nefco' is not a poison and may be sold without restriction.

Available from your usual wholesaler or from :

A. J. WHITE, LIMITED, COLDHARBOUR LANE, LONDON, S.E.5

NCWT 12



We do this



...will

you do this?



THE BRITISH PERMANENT STARCH CO. LTD., KENT HOUSE, 87 REGENT STREET, LONDON

Starting the week in March we are staging a huge advertising campaign reaching a combined circulation of 54,000,000. In papers like the Radio Times, the great Sunday papers, the national dailies and many provincial papers, women will be told "to look out for the new dip 'Double Bottle' display." Millions of housewives are already regular buyers of dip, millions more will buy dip this year.

Each case of dip contains new 'Double Bottle' display. Let it earn profits for you. Display dip where your customers can see it. They are told to buy dip for your dip displays. Retailers order more than one case at a time—take out the display gadget and set it to work right away. They reason 'If dip people do all this advertising, I'll make jolly certain it does some good—make the product work for me!"

Note new price; dip is now



WHOLESALE ONLY



**TABLET
BOTTLES**
of Quality

Nos. 1 to 7½ sizes

SCREWCAPS — Black Bakelite, White Enamelled Tinplate and Satin Finish Aluminium

NATIONAL

National Glass Works (York) Ltd.

Fishergate, YORK
Telephone: York 3021

105 Hatton Garden, London, E.C.1
Telephone: Holborn 2146



the ethical name in Contraception .



Ortho-Gynol: contraceptive jelly.

Package A : 3 oz. tube, with Ortho Applicator.

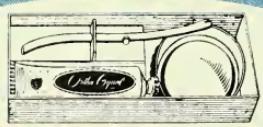
Package B : 3 oz. tube.



Ortho-Creme: contraceptive cream.

Package A : 2½ oz. tube, with Ortho Applicator.

Package B : 2½ oz. tube.



Ortho-Gynol Set: containing :

3 oz. tube of Ortho-Gynol

Ortho Diaphragm

Ortho Diaphragm Introducer } in sizes 55 to 95
(in 5 mm. gradation)



Ortho-Creme Set: as Ortho-Gynol Set with tube of Ortho-Creme instead of Ortho-Gynol in sizes 55 to 95 (in 5 mm. gradations).

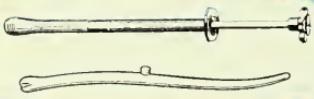
Ortho Diaphragm Duo-pack: containing

Ortho Diaphragm in sizes 55 to 95 (in 5 mm. gradation)
1 oz. trial size Ortho-Gynol.
¾ oz. trial size Ortho-Creme.



Ortho Diaphragm: coil spring, rubber diaphragm sizes 55 to 95 (in 5 mm. gradations).

Strong, light, durable, the Ortho Diaphragm is a
contraceptive device of outstanding quality and
dependability. Each is packed in a permanent and
beautiful plastic box.



Ortho Applicator: for vaginal application of measured dose (5 cc.) Ortho-Gynol or Ortho-Creme.

Ortho Diaphragm Introducer: individual introducers to accommodate diaphragms sizes 55 to 95 (in 5 mm. gradations)

Supplies through your usual wholesaler, please!



Ortho Pharmaceutical Limited

HIGH WYCOMBE · BUCKINGHAMSHIRE · ENGLAND

Makers of Gynaecic Pharmaceuticals



"RELIANCE"

**150 YEARS IN THE
SPONGE TRADE**

"CRESSWELLS" are today the largest bulk buyers of Natural Sea Sponges with a widespread organisation which *gets the best* when the sponge crop is fished. For the best sponges, in the widest range, the brand is RELIANCE. Please send for illustrated leaflet showing our full range of attractive sales-producing sponge boxes.

*Your enquiries, for sponges and also
for CHAMOIS LEATHERS, will
receive immediate, expert attention.*



CRESSWELL BROS. SPONGES

(WORLD NATURAL SPONGE SUPPLIERS LTD.)

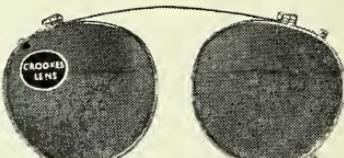
SPONGE IMPORTERS AND EXPORTERS

BUCK STREET · CAMDEN TOWN · LONDON

Phone : GULLiver 5462-3

Telegrams : Sponge, Norwest, London

ORDER
through your wholesaler!

**METAL CLIP-OVERS**

4 sizes, Crookes Lenses, 5/- retail

Bartlett's 1952 Sun glasses

**THE BEST
AND WIDEST
SELECTION
EVER!**

Once again our range of Sun Glasses leads all others in offering the latest and most fashionable styles which bring you maximum sales and profits.

British, French and Italian Sun Glasses with Crookes lenses—plastic and metal frames. Teenage and children's sizes, Clip-overs and a wide variety of styles and colours to retail from 8d. to 3 guineas.

Write now for our new illustrated folder.

**Alfred Franks
and
Bartlett Co. Ltd**

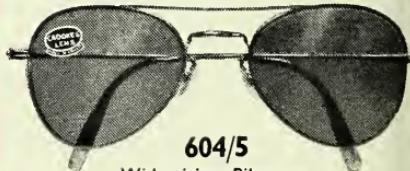
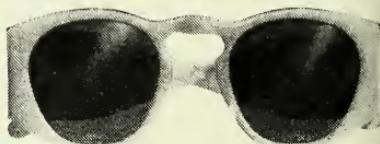
Audrey House, Ely Place, London, E.C.1

Telephone: HOLborn 1078 (PX)

All wholesale enquiries to this address please.

**652****PANTO SHAPE**

Choice of colours, Crookes Lenses 2/- retail

**16/17**Popular style for children
2 shapes, various colours 1/- retail**604/5**Wide vision, Pilot-type,
Gilt or Nickel plated 12/6 retail**D MODEL**Blinder style, plastic Lenses.
Choice of colours 1/- retail

Potassium Citrate

Properties. A white crystalline powder or colourless granules readily soluble in water and having a cooling saline taste. It is slightly hygroscopic.

Standard. The standard grade manufactured for medical purposes complies with the requirements of the British Pharmacopoeia in all respects.

Potassium citrate is used in medicine as an acid, a mild diaphoretic, febrifuge and diuretic. It renders the blood and urine more alkaline, having a remote effect of the bicarbonates without the neutralising effect on gastric secretion. It is a mild aperient and also a useful expectorant. It is used in the treatment of rheumatism, gout, diabetes, nephritis and pyelitis.

Packages. 1-lb. bottles, 28-lb. tins, 2 cwt. casks.



*Other
Pharmaceutical
chemicals
manufactured
include:*

Bismuth salts
Ethers
Iodides
Mercurials



Thomas Tyrer & Co. Ltd.
Watford, London, E.15



P. P. PAYNE & SONS LIMITED

HAYDN ROAD, NOTTINGHAM
Phone: NOTTINGHAM 66648 (3 lines)

BUSH HOUSE, LONDON W.C.2
Phone: TEMPLE BAR 5964 (2 lines)

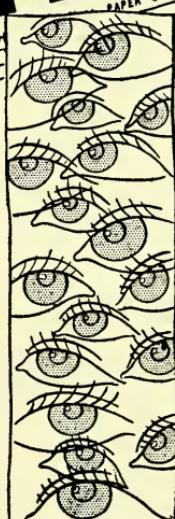


seen by **20,000,000** pairs of eyes

The new Softex advertising has a huge audience in the National Sunday Press and Women's magazines.

This audience will expect to see Softex in your window — on your counter. Check your stocks of

Softex. Keep it on display — and make the utmost of this new advertising drive.



**SWAN MILL
PAPER
CO. LTD.**
SWANLEY,
KENT

Telephone :
Swanley Junction
2386/2388

Triple Action for HEAD DISINFESTATION

Kills HEAD LICE Removes NITS
Prevents REINFESTATION

ESODERM is a pleasant, non-irritating, foamy shampoo approved by Doctors, Nurses and Clinics throughout the country for Head Disinfestation.



Contains: Dicophanum, B.P.C. Oil, Melaleuca Alternifolia, B.P.C. Sulphonated Alcohol.

15/- per doz. retail less 33½% discount, Purchase Tax 3/4 per doz.
Retail Price: 1/6½ per tube including Purchase Tax.

Manufactured by

PRIORY LABORATORIES LTD., WEST DRAYTON, MIDDLESEX

Sole Distributors for Scotland: James Taylor (Trongate) Ltd., Glasgow



ESODERM Trade Mark Medicated Shampoo

Immaculate freedom for
women who instinctively
prefer the finest of all
protection

MARIE

(Cotton wool)

AND

SOLOUISE

(Soluble)

SANITARY TOWELS

Wholesale & Retail Enquiries to—

JASON & STUART PRODUCTS

PLANE STREET MILL, PLANE STREET
OLDHAM, LANCS.

Tel.: Main 3340

Grams: JASON

JANET'S SOLVENT

The efficient treatment for
BLACKHEADS

BONUS OFFER

To link up with our advertising campaign and in return for window or counter display all orders received during January and February, 1952 will be executed on bonus terms as follows:—

Retail 2/6 - Trade 12/- per dozen
(100% P.T.) - 14 to dozen on complete dozens.

Retail 4/6 - Trade 21/6 per dozen
(100% P.T.) - 7 to half dozen.

Purchase Tax on bonus chargeable on invoice. Any quantity carriage paid.

Order NOW and take advantage of these very generous terms.

JANET'S SOLVENT, packed in display boxes, sells on sight.

S. C. STANNARD, LTD
6/7 ST. DUNSTAN'S LANE, LONDON, E.C.3

NEW!

Now
in Family-size

DALMAS WATERPROOF first-aid dressings
in the new 2/6 blue tin

OTHER DALMAS PRODUCTS
YOU WILL WISH TO STOCK

DALMAS STRAPPING. A waterproof strapping with 101 first-aid uses for customers and doctors. Supplied on 1/4" metal spools (1 yd. x 1"), or in blue plastic containers, 2/3 (3 yds. x 1").

DALMAS VACCINATION SHIELDS. A new waterproof vaccination dressing, increasingly used by doctors, available in two sizes, the smaller being for children.

DALMAS FINGER-TIP DRESSINGS. A waterproof dressing for cracked, cut, or sore finger-tips.

DALMAS BOIL PLASTERS. A waterproof dressing to protect boils.

DALMAS LTD.

LEICESTER (Phone: Leicester 65261)
London Depot: 140-142 St. John Street,
C.I. (Clerkenwell 3399)
Scottish Agents: Robert Telford, 29
Waterloo Street, Glasgow, C.2. (Central
16)

Dalmas (Ireland) Ltd., Henrietta
Lane, Dublin.



TOGETHER with the well-known Dalmas 1/- tin the new 2/6 tin fills all your customers' requirements. Produced in answer to real public demand for an economy-sized tin of first-aid dressings, the new "family-size" Dalmas satisfies the needs of the biggest group of users—the family, the office, and the small factory.

This new "family-size" tin is just made for the family, especially where there are young children often in need of first aid. Lower factory costs of this larger tin enable Dalmas to give the best value on the market, along with a better selection of sizes than was ever before possible. Dalmas, makers of the original and best waterproof dressings, are the first to bring to the public real economy in first-aid dressings.

The new tin retails at 2/6, price to the trade 21/6 per dozen—and only Dalmas has this new "family-size"!

DALMAS IS THE MOST EFFICIENT FIRST-AID DRESSING!

- Waterproof—you can wash with a Dalmas dressing on
- Stretches to fit in all directions
- Will not fray, come off or catch in clothing
- Grease- and acid-proof—protects against infection

DISPLAY THE BLUE TIN WITH THE WHITE HAND

CROAKY?

Every time you see Croaky on a poster or in your newspaper, check on your supplies of Kilkof and Kilkof-Kones. Customers see him too and they'll be in your shop again for these profitable Parkinsons products



take

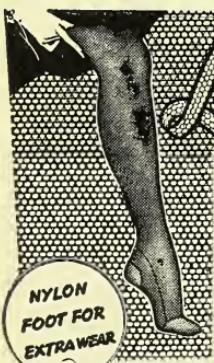
KILKOF

and KILKOF-KONE

MADE BY PARKINSONS LTD., MANUFACTURING CHEMISTS, BURLEIGH

NET FOR VENTILATION You need no stock

Lastonet surgical stockings are sold for you through NATIONAL & MEDICAL JOURNAL ADVERTISING. All you need is a supply of measurement forms which we will gladly send to you together with display material and particulars of trade discount. Write today!



Lastonet
E-L-A-S-T-I-C
NET STOCKINGS

- ★ MADE ONLY TO MEASURE
- ★ INVISIBLE under ordinary stockings
- ★ COOL TO WEAR

LASTONET PRODUCTS LTD. Carn Brea, Redruth, Cornwall



ROZALEX
OINTMENT

Retailing
2/6 per tube
inc. P.T.
Obtainable
from your
usual
wholesaler

TRADE DISCOUNT
33½

ROZALEX LTD., 10 NORFOLK STREET, MANCHESTER



ACETONE · BUTANOL
BORAX · BORIC ACID
DIBUTYL PHTHALATE
DIMETHYL PHTHALATE
DIOCTYL PHTHALATE
PHTHALIC ANHYDRIDE

ACETYSALICYLIC ACID U.S.P.
CAMPHOR U.S.P. NATURAL
(POWDER AND TABLETS)
DEXTOSE C.P. ANHYDROUS
EMETINE HYDROCHLORIDE U.S.P.
LACTOSE U.S.P. POWDER
PHENACETINE U.S.P. POWDER
SANTONIN N.F. CRYST.
VITAMINS · ANTIBIOTICS

Gallard-Schlesinger Chemical Co.

92 LIBERTY STREET, NEW YORK 6, N.Y.
Plant: STATEN ISLAND, N.Y. Cables: GALLARDKEM



AN APPROVED METHOD OF

Family Planning

GYNOMIN

Regular medical and national publicity will bring increasing demands to your pharmacy. Medical literature available to pharmacists on request.

The scientifically balanced, antiseptic and deodorant contraceptive tablet. Spermicidally efficient and recommended extensively by the medical profession.

SPECIAL QUANTITY DISCOUNTS MEAN EXTRA PROFITS.

3 doz. tubes at 31/6 per doz. less	5%
6 doz. " " " " " " "	7½%
12 doz. " " " " " " "	12½%
Retail price 3/6 per tube of 12 tablets.	

Order from your wholesaler.



Manufactured by

COATES & COOPER LTD

PYRAMID WORKS · WEST DRAYTON · MIDDLESEX

PATTINSON'S
Reg'd Brand
MAGNESIA

B. P. QUALITY

Mag. Carb. Levis. · Mag. Carb. Pond.
Mag. Oxide Levis · Mag. Oxide Pond.

Mag. Trisilicate

Mag. Hydrate. · Mist. Mag. Hydrox.

SUPPLIED THROUGH ALL WHOLESALERS
BY THE SOLE MANUFACTURERS:

THE WASHINGTON CHEMICAL CO., LTD.
(A MEMBER OF THE TURNER AND NEWALL ORGANISATION)

WASHINGTON, COUNTY DURHAM

LONDON OFFICE:
EVERITE HOUSE, 59½ SOUTHWARK ST., S.E.1
MANCHESTER OFFICE:
74 PALMERSTON STREET, MANCHESTER, 12

FOR

PATENTS

DRESSINGS

PILLS & TABLETS

DANGEROUS DRUGS

DRUGS & GALENICALS

ETHICAL PROPRIETARIES

SMITH & HILL
(Chemists) Ltd.SIDNEY ST., SHEFFIELD, 1
Phone: 24321

ADVERTISING FOR DCL YEAST TABLETS

*has
begun*

150,000,000
appearances in
25 IMPORTANT
PAPERS

D.C.L. Yeast advertisements are already circulating amongst your customers and will continue to do so all through the winter and spring in the following papers:

Daily Mail
Daily Telegraph
Evening News
Empire News
Picture Post
Illustrated
Aberdeen Press & Journal
Edinburgh Eve. News
Glasgow Bulletin
Glasgow Eve. Citizen
Glasgow Eve. Times
Glasgow Sunday Post

Daily Mirror
Times
Sunday Pictorial
Sunday Graphic
Punch
Aberdeen Eve. Express
Dundee Eve. Telegraph
Edinburgh Eve. Dispatch
Scotsman
Glasgow Daily Record
Glasgow Eve. News
Glasgow Herald
Glasgow Sunday Mail

D.C.L. Yeast Tablets provide a daily ration of natural Vitamin B₁, each tablet having a potency of approximately 100 International Units. They aid digestion, assist in the creation of energy, and co-ordinate the efforts of brain, nerves and body. You can recommend them with confidence.

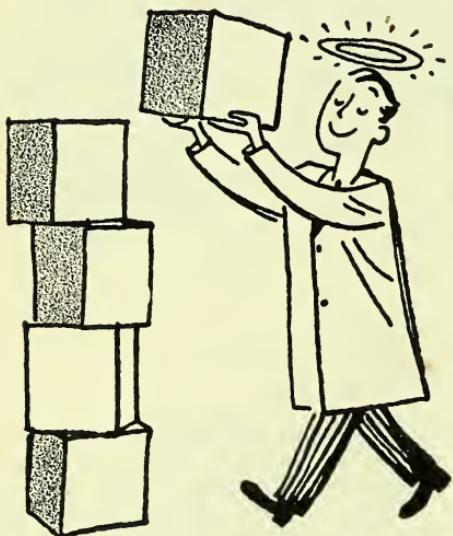


DCL

Vitamin B₁ YEAST TABLETS

Sole Manufacturers: THE DISTILLERS CO. LTD., EDINBURGH

Please keep our cases . . .



we'll
collect them !

It will help us greatly to maintain deliveries of Andrews Liver Salt if you will kindly put the empty delivery cases safely aside until our traveller can collect them. We allow 6d. each for cartons in good condition. **THANKS!**

ANDREWS

SCOTT & TURNER LTD.

ANDREWS HOUSE, NEWCASTLE-UPON-TYNE, I
GT6/u/50



Most of the training necessary to qualify for a Diploma in Chiropody can now be taken at home by specialised correspondence lessons. Fullest particulars of how to enter this highly-paid profession from

SCHOOL OF SURGICAL CHIROPODY
(Dept. CD).
LEATHERHEAD, SURREY



Sensitive skins

Cuticura Shaving Soap mildly medicated . . . you customers will thank us for introducing them to the perfect stick for ten faces. The black and orange plastic holder for this large-sized stick attracts the eye. Display cartons with each half-dozen make them easy sellers at your counter.

National advertising supports your sales. Cuticura Shaving Sticks retail at 2/2 (Inc. P. Trade price 15/6 doz. P.T. 5/2 doz.)

Cuticura

MILDLY MEDICATED
SHAVING STICK

DON'T FORGET QUICK SELLING CUTICURA STICKS
Order to-day from NEWBERRY & PHILLIPS LTD
Victoria House, Southampton Row, W.C.1. HOL 1



Lifting the veil

The distress which accompanies the menopausal years need not be allowed to unchecked. The physician has an adequate means of relieving the several conditions which veil a woman's outlook during her middle years. The administration of SEDESTRAN is a safe and ready method of controlling these symptoms by minimal medication. Menopausal migraine and hypertension respond well to SEDESTRAN as also does dysmenorrhea of neurogenic and psychogenic origin.

SEDESTRAN

TRADE MARK

STILBOESTROL 0.1 mg. PHENOBARB. $\frac{1}{4}$ grain

Literature on request.

A Geigy Medical Announcement.



Bottles of 25 and 100 tablets. Dispensing pack - 1,000 tablets.

PHARMACEUTICAL LABORATORIES GEIGY LTD

RHODES · MIDDLETON · MANCHESTER · MIDDLETON 3933

Dr. J. Collis Browne's Chlorodyne
and
The Pharmacy and Poisons Act, 1933

Dr. J. Collis Browne's
CHLORODYNE

SALE RESTRICTED TO REGISTERED CHEMIST

PURCHASER'S SIGNATURE NOT REQUIRED

P.A.T.A.

Sole Proprietors:

J. T. DAVENPORT LTD.
UNION ST., LONDON, S.E.1

**Portrait
of a Winner...**

The soaring sales of this remarkable new French Hair Colour Rinse show the enthusiastic welcome Coloral has received from women all over the country. If you are not stocking it you are missing rewarding profits. Show it — and it sells! Get a stock from your wholesaler now!

COLORAL
Liquid
HAIR COLOUR-RINSE

Made in six shades:—Deep Brunette, Velvet Brown, Hazel Brown, Burnished Gold, Auburn, Steel Blue.

RETAILING AT 1/3d. PER CARD OF TWO RINSES.

Packed and distributed in Great Britain by
GOLDEN LTD • 2/4 DEAN STREET • LONDON



TRADE PRICE 6/- per dozen
(plus 100% tax) in boxes of two do-
carts of any one shade, or in a fi-
assortment of two dozen.

• W.I. TEL: GERRARD

An old favourite in a New Bottle

EWTON CHAMBERS

announce

that IZAL, the *extra power*icide, is now offered in an elegantly redesigned bottle, with a plastic cap and a detachable screw top. For 60 years Izal has been used by doctors and nurses all over the world. As professionals they know that it is as potent in the hospital or sick-ward as it is in the laboratory test tube.

Izal is the *extra power*icide which can always be recommended with absolute confidence in times of real emergency at home.

Give the new bottle a big display in your window and tell your customers about Izal.

is the old Izal bottle — so long dear to doctors and nurses. By the British Standards Institution Rideal Walker Test, Izal has 18-20 times the germ-killing power of phenol.



PLACE YOUR ORDER NOW

(WHOLESALE PRICE 15/9 PER DOZEN)

TON CHAMBERS & COMPANY LIMITED, THORNCLIFFE, SHEFFIELD

MOTHDOOM

has proved itself A READY SELLING LINE

It is a pleasantly perfumed and absolutely stainless liquid which exterminates Moths, their Eggs and Grubs, and for which ever-increasing personal recommendations have created a rapidly growing

INSISTENT PUBLIC DEMAND

This reinforced by advertising in national publications, attractive leaflets, showcards, etc., and

LIBERAL TRADE DISCOUNTS

make it a most profitable line to stock.

Popular Sizes retail at 3/9 and 7/-

Bulk sizes from $\frac{1}{2}$ gallon upwards also available.

Trade inquiries to :

DAVID REID LIMITED
REIDEX HOUSE, ABINGDON ROAD, KENSINGTON, W.8



THE CONVALESCENT
THE NEURASTHENIC
THE OVERWORKED
THE AGED

*They all need
John Bell's
Tonic Phosphates*



Presented in an easily assimilated liquid form, this well-proved combination of strychnine and the glycerophosphates quickly wins the patient's confidence through its pleasing colour and palatability. Tonic Phosphates restores appetite, increases energy, and improves bodily tone—ensuring for the generally debilitated a properly balanced return to sound health.

Order John Bell's Tonic Phosphates now, to meet the demand which regularly develops at this time.

JOHN BELL'S TONIC PHOSPHATES

	Retail price	Wholesale price
4-oz. size ...	2/6 ea. ...	19/4 doz. inc. tax
8-oz. size ...	4/3 ea. ...	32/8 doz. inc. tax
16-oz. size ...	7/7 ea. ...	57/4 doz. inc. tax



**JOHN BELL, HILLS & LUCAS
LIMITED**
Oxford Works
Worsley Bridge Road
London, S.E.26

MAWSON & PROCTOR PHARMACEUTICALS LTD.



THE SPECIALITY SHOWROOM

A comprehensive range of medical specialities is displayed in this showroom which is known throughout the North as "The Ethical Department".

Pharmacists and their assistants appreciate its friendly atmosphere and its specially trained staff.

Mawson's are always at your service for :

**ETHICAL MEDICAL SPECIALITIES,
PROPRIETARIES
DRESSINGS
DRUGS**

MAWSON & PROCTOR PHARMACEUTICALS LTD.

LOW FRIAR LANE • NEWCASTLE-ON-TYNE • Telephone : Newcastle 27074

Lemons
Glucose
Scotch Barley
Sugar

For acidosis . . .
recommend
Rayner's
Lembar
all the year
hot or cold



MADE BY RAYNER AND COMPANY LIMITED, LONDON, N.18

Pharmaceutical Emulsions and Emulsifiers

by L. M. Spalton, B.Pharm., M.P.S.

Today, the pharmacist is faced with an almost bewildering assortment of emulsifying agents, all having varying properties and requiring different methods of treatment.

In this book the considerable range of these products has been classified, together with essential practical points about their pharmaceutical use. It contains chapters devoted to the theory of the formation of emulsions, properties of different emulsifying agents (classified into groups according to their structure and characteristics), the formulation and preparation of emulsions, the general methods of preparing emulsions with details of technique and causes of emulsion separation, preservation and storage of emulsion, etc.

The practical uses of emulsifiers is dealt with at considerable length, together with methods of handling each type of emulsifying agent and full notes of incompatibilities and other matters.

The book also contains a classified index of over 300 emulsion agents used in the Drug, Toilet and Cosmetic trades and other industries, with reference to their composition, type and uses, together with an index of manufacturers.

Useful and up-to-date—this book provides essential information in concise form.

★ *Every pharmacist should possess a copy*

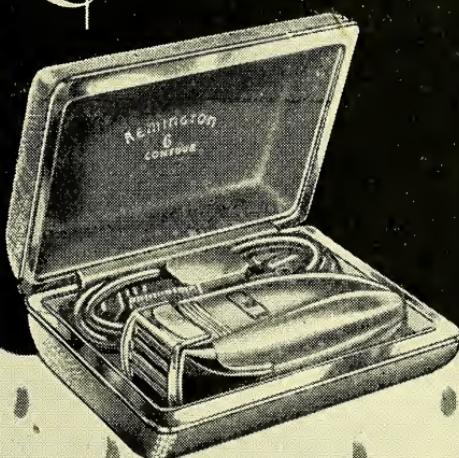
Send remittance with order to :—

The Publisher, **The Chemist & Druggist**
28 Essex Street, Strand, London, W.C.2

5/6
post free



REMINGTON
proudly presents the
Contour 6

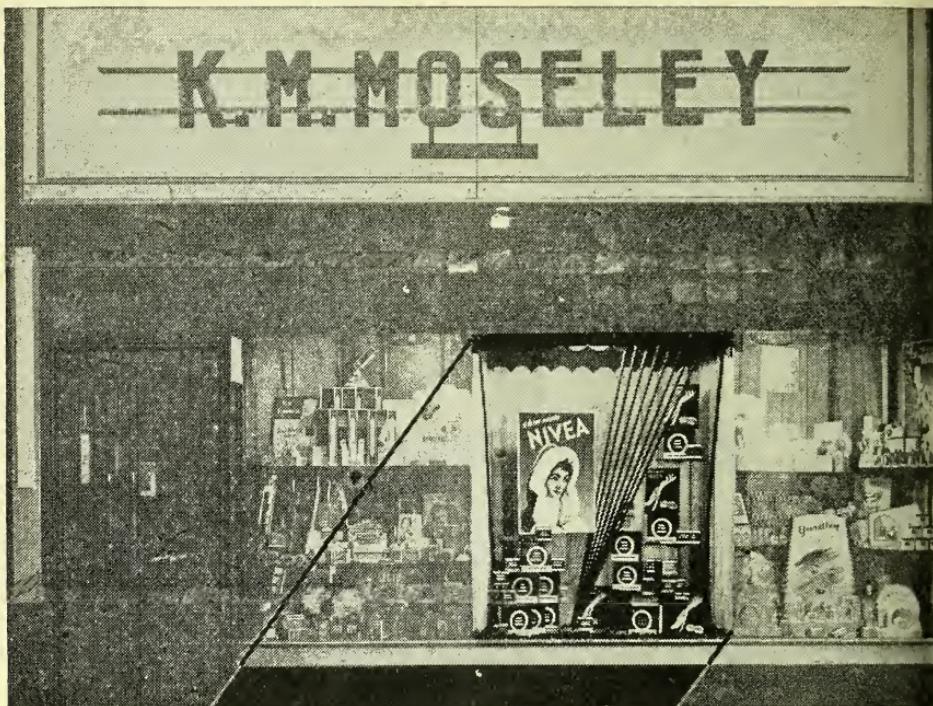


The Present with a Future

The new Remington Contour 6 is here! The revolutionary features are the six diamond-honed heads, arched on a contour to fit every type of face! Backed by a powerful advertising campaign, the Contour 6 opens up a new era of customer satisfaction, improved shaving and big profitable business. Write now for details to Remington Rand Ltd, Dealer Wholesale Division (Dept. ST 26) 1-19 New Oxford Street London, W.C.1.



*Click
and
I'm Shaving*



NORTHANTS' CENTRE SHOW

A well-established pharmacy in Northampton
makes NIVEA the centre of attraction
Display NIVEA show material to
advantage — it forms the last link
in an ever widening chain of publicity . . .

TO SELL MORE **NIVEA**

G.N.T.
HERTS PHARMACEUTICALS LIMITED · WELWYN GARDEN CITY · HER

Quality Products

from the

House of Wander

IN order to maintain the general excellence of Wander preparations, effort is not spared to apply systematically the latest discoveries of scientific research. Raw materials are selected, manufacturing processes devised, and scientific control applied all with the same object in view. The 'Ovaltine' Research Laboratories, where Wander products are constantly under active investigation and development, are amongst the best of their kind, and are staffed by fully qualified scientists.

The 'Ovaltine' Factory in a Country Garden, the 'Ovaltine' Dairy Farm with its famous herd of prize-winning Jersey cows, and the 'Ovaltine' Egg Farm, are all evidence of the policy of excellence which animates the House of Wander.

The following are a few of the many well-known Wander Products :

OVALTINE

The world's most popular food beverage. Because of its nutritive value and ease of digestibility, 'Ovaltine' is the food beverage most widely used in Hospitals and Nursing Homes everywhere.

ALASIL

A most effective analgesic. The desirable effects of acetylsalicylic acid are maintained without the tendency to irritate by combining the acid with 'Alocol' (Colloidal Aluminium Hydroxide)—an effective gastric sedative and antacid.

OVALTINE RUSKS

Delicious, digestible and nourishing. Prepared from the finest ingredients, including a proportion of 'Ovaltine'. They are a great aid and comfort to infants at teething time.

ALOCOL

The well-known brand of Colloidal Aluminium Hydroxide. A most effective antacid for the neutralization of hyper-acidity in the treatment of peptic ulcer and other conditions which irritate the alimentary tract. Available in the form of Powder and Tablets, or ALOCOL CREAM—a stable and palatable cream which does not separate.

Details of sizes and prices will gladly be sent on request

A. WANDER LTD., 42 Upper Grosvenor Street, Grosvenor Sq., London W.1

• *Laboratories, Farms and Manufactory : King's Langley, Herts.*

Announcing

THE NEW

MELLIN'S MALTO-DEXTRIN FOOD

FOR INFANTS, INVALIDS AND CONVALESCENTS

Medical experts agree that it is a particularly nourishing and easily digested food for infants, invalids and convalescents.

You can start selling this fine new product straight away for there's no need to clear your old stocks of Mellin's first. Return them to your wholesaler, and they will be credited against your new order.

In its attractive and most recognisable new pack it will be a quick-moving, easy-seller, retailing at 3.6 a bottle.

ORDER NOW...

AND REPLACE OLD STOCKS FREE WITH

THE NEW

**MELLIN'S MALTO-DEXTRIN
FOOD**



MELLIN'S FOOD LIMITED LONDON, S.E.5

Give them TOP PLACE!

**FENNINGS'
RHEUMATIC
TABLETS**

A good product, with a good demand—well known, and well advertised. A boon to sufferers from muscular rheumatism, neuritis, neuralgia and similar complaints.

Retail at 2/6 for a carton of 45 tablets.

**FENNINGS'
LITTLE
HEALERS**

How many customers do you see each week? . . . and how many of those have colds or aches. At this time of the year, especially, Fennings' Little Healers should be at your finger-tips.

Retail price 8d., 1/9 and

Two famous lines which will help your turnover and your customer. Give them top place when ordering supplies from your wholesaler.

Fennings' HOME REMEDIES

Fennings' Sulphur Powders

Fennings' Ointment

Fennings' Indigestion Tablets

Fennings' Rheumatic Tablets

Fennings' Fever Mixture

Fennings' Children's Cooling Powders

Fennings' Adult Cooling Powders

Fennings' Little Healers

Fennings' Whooping Cough Mixture

Sales promotion material gladly sent on request.

ALFRED FENNINGS · HORSHAM · SUSSEX

THE WORLD'S MOST FAMOUS HAIR TON



stops hair fallin starts sales risin

Petrole Hahn has been renowned throughout the world for over 70 years as an unrivalled preparation for preventing scurf, dandruff and falling hair. Its fine reputation, growing every year, means *sure* sales for you. Place your order *now*—Hovenden will fill your order immediately—no matter how large.

Small size (6/- retail) : 28 1/8 doz. plus 100% P.

Large size (10/- retail) : 48 1/2 doz. plus 100% P.

PETROLE HAHN

Hovendens

SOLE DISTRIBUTORS

LONDON: 29-33 BERNERS ST., W.1. CARDIFF: 9-10 NEW

BELFAST: 10 ROYAL AVE. LIVERPOOL: H. E. JARVIS & CO.

5-7 FLEET STREET. MANCHESTER: WATTS BROS. (M/C)

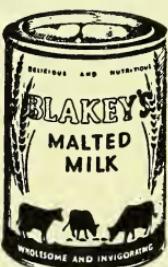
72 CANNON STREET. BLACKPOOL: WATTS BROS. (M/C) LTD. 88 CORONATION

TWO WAYS TO HEALTH —

Blakey's Malted Milk

A delightful and nutritious drink whether made with water or with milk. Aids digestion and encourages deep refreshing sleep.

1 lb. tin 3/11



Blakey's Malted Oatmeal

Known for 60 years as the ideal cereal food for babies and invalids and enjoyed by the whole family.

1 lb. carton 1/2
1 lb. tin - 2/6



★ COMMENCING 1952 ★

Eight leading women's magazines will carry advertising to help you sell
B.M.O and B.M.M.

BLAKEY'S FOOD CO. LTD., LINCOLN

HELIOTROPINE

ISO BORNYL ACETATE

PHENYL ETHYL ALCOHOL

TERPINEOL

VALERIANATES



GALE & MOUNT
LTD.

37 ROTHSCHILD ROAD
LONDON, W.4

Telephone: CHIswick 6628/9



*In the treatment
of the common cold*

SULFEX'

provides relief from nasal congestion and prophylaxis against secondary invading organisms.

'Sulflex' administered at the sign of a cold will often arrest the condition entirely, even in the acute stages. Prompt symptomatic relief can be obtained and the onset of complications, such as sinusitis, etc., avoided. If you hold a representative stock of 'Sulflex' you can dispense your customers' prescriptions without delay. 'Sulflex' is issued, for prescription use, in 1-oz. bottles with dropper. Trade price 40/6 per dozen (exempt from P.T.): retail price 4/6 each.



'SULFEX'

a Schedule IV preparation

MURRAY & JAMES, LIMITED, COLDHARBOUR LANE, LONDON, S.E.5
for Smith Kline & French International Co., owner of the trade mark 'Sulflex'

Greatest advance in Home Perming

**NO
NEUTRALIZER
NEEDED**





GE NATIONAL PRESS ADVERTISING CAMPAIGN TO LAUNCH PROM

At last is a trouble-free perm. No neutralizer needed. Hair perms as it dries, on rollers. Wave is deeper and longer lasting. Large, exciting advertisements will tell the dramatic story of Prom to your customers. Night and morning in the daily press. Week after week in the picture papers, and women's weeklies. Month after month in the women's journals. And this concentrated, continuous advertising will be . . .

RETAIL PRICE
8/4
 INCLUDING TAX

CONTENTS

4 oz. bottle waving lotion.

72 end tissues.

Instruction leaflet.

PROM is a refill

Can be used with any home perm curlers.

IMPORTED BY A STRONG CINEMA ADVERTISING CAMPAIGN

Order through your usual wholesaler or Noma Cosmetics Ltd., Harlequin Avenue, Brentford, Middlesex.

One week of
Squeak
DESTROYS ALL MICE!

1/6

Mice spread disease. Three years of scientific research produced SQUEAK the positive mouse killer. Painless to mice. Harmless to children and pets.

FROM CHEMISTS, STORES, ETC. OR DIRECT FROM
SOREX (London) Ltd 105, TONBRIDGE ROAD
MAIDSTONE • KENT

... RAPI
REGULAR SALE
because
IT REALL
IS EFFECTIVE

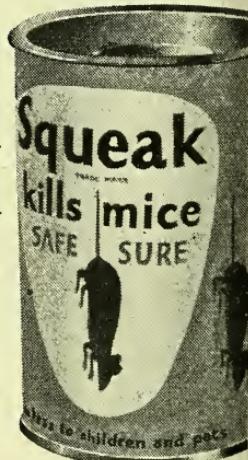
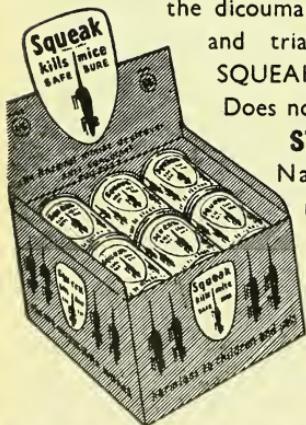
ANTI-COAGULANT MOUSE EXTERMINA

Typical of the national advertising which will direct men and women to your shop to ask for SQUEAK is this powerful advertisement appearing regularly in "John Bull" and "Illustrated

The active principle of SQUEAK is an anti-coagulant of the dicoumarin type. Three years of research and trials have proved the efficacy of SQUEAK. Safe for children and pets. Does not contaminate food.

STOCK UP WITH SQUEAK

National advertising—and the recommendation of your customers—will make SQUEAK the biggest, fastest and easiest seller.



If any difficulty in obtaining supplies, write to the proprietor enclosing the name of your wholesaler:—

SOREX (London) Ltd

105 TONBRIDGE ROAD
MAIDSTONE • KENT
Telephone: MAIDSTONE 289

MOTHAKS

DON'T DELAY!



SPRING IS JUST AROUND THE CORNER

A MOTHAK display brings early and increasing sales of this nationally advertised, tax-free line.

Full range of show material on request.

MOTHAKS sell at 1/- per bag and cost only 8/6 per doz.—reduced prices for 6 dozen and over.

Sole Makers

THOMPSON & CAPPER WHOLESALE LTD.

Speke Hall Road, LIVERPOOL, 19.

INTRODUCING

The Stratton

"MIRACLEA COMPACT

CLEANS THE
MIRROR EVERY
TIME THE COMPACT
IS OPENED



Manufacturers
JARRETT RAINSFORD & LAUGHTON

LIMITED
LOWER ESSEX STREET · BIRMINGHAM 5 ENGLAND
TELEPHONE MIDland 3771

LONDON OFFICE,
100 DEAN STREET W.I.

CABLES
RAINSFORD B'HAM.

This ingenious mirror
cleaning wiper presents
a clean mirror each time
the compact is used.

It is an outstanding selling
feature that is a sales
delight.

Ask your Wholesale
for full details.

No. 376 ET (illustrated),
fully Engine Turned.

No. 375 Dainty all-over
design with flowers.

No. 371 Black or Ivory
with gilt bands.

All fitted with self-opening
lid and sifter. Size 2½



Nuffler Time is 'Kepler' time, now more than ever! For reports from all parts of the country indicate that more and more mothers are coming to realise how valuable 'Kepler' is during the winter—and especially through the epidemic season—in providing extra nourishment, promoting sturdy growth and building up defence against infection. That is why, with the lessons learned from last winter's influenza epidemic as their guide, mothers will be asking you for 'Kepler'—not only for the children, but for adults, too! Make sure your stock of 'Kepler' is sufficient to meet the demand; if not, you will be well advised to E-ORDER NOW!

'KEPLER' BRAND

COD LIVER OIL WITH MALT EXTRACT

Protects the bodies it builds



BURROUGHS WELLCOME & CO. (THE WELLCOME FOUNDATION LTD.), LONDON, N.W.1

**PASTILLES
LOZENGES
CAPSULES
OINTMENTS**



**... Our Job is
the Manufacture
and Packing of
These Goods**

*... we do it well,
as we should—
after so many
years experience*

**OUR ORGANISATION IS ALWAYS
AT YOUR SERVICE**

**WARRICK BROS. LTD.
WARREX LABORATORIES
LONDON, N·I**

The



CHEMIST AND DRUGGIST

for RETAILER—WHOLESALE—MANUFACTURER

FEBRUARY 16, 1952

Published weekly at 28 Essex Street, Strand, London, W.C.2

Telephone: Central 6565 (10 lines). Telegrams: "Chemicus, Strand, London."

Single copies 1/- each. Annual Subscription, which includes *The Chemist and Druggist Diary and Year Book*, £2

Volume CLVII

CONTENTS

No. 3756

An Analysis of 17,000 Prescriptions	224	Local News	194
Births	200	N.H.S. Profits Investigation	229
Books, New	228	Newcomer's Notebook—4	234
Branch and Association Meetings	196	New Companies	198
Business Changes	198	Personalities	201
C. & D. Retail Price List	225	PHARMACEUTICAL MACHINERY	
Coming Events	201	Ampouling Machinery	210
Correspondence	223	Filling by Machine	203
Deaths	200	Grinding, Sifting and Mixing	215
Echoes of the Past	225	Laboratory Apparatus	208
Editorial Articles:—		Machinery and Plant Notes	207
Prescribing Under Scrutiny	221	New Policy and Better Machines	218
Chemists and the Cuts—3	221	Price Changes	235
Mechanising Pharmacy	222	Print and Publicity	236
Health Service in Northern Ireland	230	Scottish News	195
Indian Pharmaceutical Congress	235	The Week in Parliament	199
Information Wanted	220	Topical Reflections	197
In Place of Pink String	226	Trade Marks	236
Irish News	195	Trade Notes	202
Legal Reports	199	Trade Report	231

NEWS OF THE WEEK

Road Haulage Rates Up.—An increase of 7½ per cent. is to be made in the charges of the Road Haulage Executive from February 24. Parcels traffic rates are to be revised to give greater uniformity and yield a similar increase.

Less Sterling for Travellers.—The Exchange Control (Import and Export) Order, 1952 (S.I. No. 140) effective from January 31, reduces the amount of sterling notes which a traveller (business or pleasure) may take out of the United Kingdom from £10 to £5.

Chilean Medical Students' Visits.—A programme arranged by the British Council for a party of fifty-seven medical students from the University of Chile visiting London recently included visits to the Ministry of Health and the museum and library of the Wellcome Foundation, Ltd.

Empire Tuberculosis Conference.—The 1952 Commonwealth and Empire Health and Tuberculosis Conference, which will

include an exhibition of pharmaceutical products, will be held in London from July 8 to 13. Details may be obtained from the secretary, National Association for the Prevention of Tuberculosis, Tavistock House North, London, W.C.1.

Society's Headquarters Scheduled.—The headquarters of the Pharmaceutical Society, Bloomsbury Square, London, W.C.1, has been listed by the Minister of Housing and Local Government as a building of special architectural and historic interest. The building was altered by John Nash (1752-1835) who acquired it in 1782 or '83.

German Enemy Property Claims.—From February 1 and for the following three months, the Administrator of German Enemy Property is authorised to accept claims under the Distribution of German Enemy Property Act, 1949, in respect of German enemy debts. Claim forms are now available from the Administrator of

German Enemy Property, Branch X, Lacon House, Theobalds Road, London, W.C.1. Intending claimants should give brief particulars of the debt.

Sulphuric Acid Supplies in 1951.—Statistics issued recently by the Sulphuric Acid Association, Ltd., show that production of the acid in 1951 amounted to 1,949,089 tons. Stock in makers' hands at the beginning of the year was 69,256 tons and at the end, 75,772. Imported acid totalled 59,829 tons of which 22,687 were brought in during the last quarter. Of the total U.K. consumption of 1,675,590 tons the drugs and fine chemicals industry used 13,048 tons and the soap and glycerin industry, 13,922. Only 1,610 tons of sulphuric acid were exported.

B.M.A. Statement on Levy.—In a statement issued on February 12, the General Medical Services Committee of the British Medical Association announces that it has considered the Government's proposal to levy prescription charges. The Committee considers that a "financial barrier" would be introduced between doctors and their patients and is instructing its representatives to urge the Government to ensure that hardship to "certain sections of the population" would be alleviated and that doctors would not be required to play any part in the collection of the money.

Controls Ended.—According to a Ministry of Food Announcement on February 6, the Soap Order, 1950, as amended, which prescribed maximum retail prices for hard soap and soap flakes sold loose, and which required manufacturers of certain types of soap to be licensed by the Ministry, has been revoked from February 7. Certain types of goods including sanitary towels, wrapping papers, containers (boxes, bags, bottles, etc.), turpentine, and soap are removed from the scope of the Prices of Goods Act, 1939 by the revocation of the Prices of Goods (Price-Regulated Goods) Orders by a Board of Trade Order: The Prices of Goods (Price-Regulated Goods) (Revocation) Order, 1952, which came into force on February 7. No changes in prices will result from the revocation of the orders as those goods are now price-controlled by a non-statutory arrangement with the suppliers and if necessary the goods can be controlled under the Goods and Services (Price Control) Act, 1941 or the Defence Regulations.

LOCAL NEWS

Theft from Pharmacy.—The premises of Timothy Whites & Taylors, Ltd., at 1 Haymarket, Leicester, were broken in recently, and bottles of sherry and port were stolen.

London Chemists and Royal Funeral.—The London Pharmaceutical Committee recommended on February 13 that pharmacies should open from 9 a.m. to 10 a.m. close until 4 p.m. and then reopen on February 15, the day of the late King's funeral.

Manchester Benevolent Fund Dance.—180 guests attended a dance organised by the Junior Branch of the Manchester Pharmaceutical Association in Manchester recently, as a result of which £56 has been sent to the Benevolent Fund of the Pharmaceutical Society.

Devon Association's Dinner and Dance.—The second annual dinner and dance of the North Devon Pharmaceutical Association was held at Bideford on January 16, when about fifty North Devon chemists and their friends attended. Mr. J. Jarvis Graves (secretary, Devon and Exeter Pharmaceutical Committee), and visitors from the Exeter Branch of the Pharmaceutical Society were also present.

Harlow Health Centre.—A health centre capable of serving a population of 10,000 was opened at the new town of Harlow, Essex, by Mr. E. Marples (Parliamentary Secretary to the Ministry of Housing and Local Government) on January 28. It will accommodate doctors and dentists, child welfare clinics, etc. No provision has been made for the supply of medicines, as a chemists' shop is to open nearby.



MAYOR AT BRANCH DANCE: The mayor and mayoress of Heston and Isleworth with the branch president (Mr. W. H. Bowden), treasurer (Mr. W. Waterman) and secretary (Mr. S. Davis) and others at annual dance of the Hounslow Branch of the Pharmaceutical Society recently (C. & D., February 2, p. 130).

SCOTTISH NEWS

Glasgow Mass Meeting.—A mass meeting of Glasgow chemists organised by the Glasgow Pharmaceutical Committee to discuss the Chancellor of the Exchequer's National Health Service proposals is to be held on February 25.

Veterinary Film Show.—A number of films on modern veterinary therapeutic treatments were shown recently to farmers in Lanark, Lanarks. Mr. C. H. Bell (Imperial Chemical (Pharmaceuticals), Ltd.), Mr. Cruikshank (Scottish Agricultural Industries, Ltd.), and Mr. G. M. Muckart, P.S. (Hinksman & Forrest, Ltd., 17 High Street, Carlisle), were present at the show to answer farmers' questions.

Meetings at Stirling.—At a meeting of the Stirling and Central Scottish Branch of the Pharmaceutical Society in Stirling recently, Mr. Charles Eggo, M.P.S., described how as a prisoner of the Japanese during the recent war he had helped to prepare "non-proprietary but none the less exclusive" drugs in the shape of kao-poultice from China clay used in dealing with dysentery outbreaks and for tooth powder, etc.; capsicum ointment from willow; mercury ointment from a broken sphygmomanometer; and their own blend of alcohol (a secret formula). Mr. Eggo, who was a sergeant in the R.A.M.C., and was for three-and-a-half years in captivity, said that the Japanese were not exactly enthusiastic about their efforts but did not frown on them.—At a previous meeting the Branch saw colour films dealing with the manufacture of baby food and subjects of general interest.

Late Closing Condemned.—The Pharmaceutical Standing Committee (Scotland) of the Pharmaceutical General Council (Scotland) has circularised all chemist contractors in Scotland drawing attention to the fact that in several areas chemists who are contractors under the National Health Service are keeping their pharmacies open beyond normal hours of business (i.e., beyond the hours which appear against their names in the Pharmaceutical List). The circular states that the Standing Committee has on previous occasions advised all chemists to adhere to the hours of 9 a.m. until 6 p.m. and 9 a.m. until 1 p.m. on early closing days. The practice of extending business hours beyond those is increasing, and is likely, in the opinion of the Standing Committee, to have very un-

desirable results. The Committee consider that the supply of medicines outside normal business hours should be dealt with by means of a rota system, which should cover service given on Sundays and public holidays. The obvious advantages, which were obtained after many years of effort, of observing uniform business hours, are now in danger of being lost by the indiscriminate extension of business hours by individuals.

IRISH NEWS

Ulster Associates.—At the February meeting of the Associates' committee of the Ulster Chemists' Association it was reported that the insurance subcommittee had met and was proceeding with a further investigation regarding members' group sickness and absence scheme.

Talk on Ethics.—A talk on codes of ethics and the functions of the Statutory Committee was given by Mr. William Gorman (secretary of the Pharmaceutical Society of Northern Ireland), when the president (Mr. H. W. Gamble) was at home to members on January 21. A general discussion of matters of current interest in pharmacy followed.

1952 Calendar.—The 1952 calendar of the Pharmaceutical Society of Ireland has just been published. It gives the number of pharmaceutical chemists on the register on October 1, 1951, as 1,959 [an increase of forty-three over the previous year]. The number of members was 940, of whom sixty-seven were life members [decreases of eleven and three respectively] and the number of registered druggists was 404 [a decrease of three] of whom 191 qualified subsequently as pharmaceutical chemists [191 also in 1950]. 100 licentiates were qualified as medical practitioners.

Message to the Queen.—The president and Council of the Pharmaceutical Society of Northern Ireland have sent the following message to the Queen:—"The president and Council of the Pharmaceutical Society of Northern Ireland humbly beg to offer to Your Majesty and all the members of the Royal Family their profound sympathy on the irreparable loss you have sustained by the death of His Majesty the King." The meeting of the Council of the Society arranged for February 15 has been postponed until February 19. The Society's annual dinner dance has been postponed from February 4 to February 25.

BRANCH AND ASSOCIATION MEETINGS

Ministry Officer at Newcastle.—Miss E. R. M. Russell-Smith (an under-secretary of the Ministry of Health) addressed a joint meeting of the Newcastle Branches of the Pharmaceutical Society and National Pharmaceutical Union held in Newcastle-on-Tyne on January 30 and was also guest of honour at a dinner held on the same day, and attended by more than 130 pharmacists and their friends. At the dinner the medical profession was represented by Mr. Whately Davidson (chief radiologist to the Royal Victoria Infirmary, Newcastle-on-Tyne).

Antibiotics Lecture at Dartford.—At a meeting of the Dartford Branch of the Pharmaceutical Society held on January 29, Mr. C. Beaven (Parke, Davis & Co., Ltd.) gave an illustrated address on "Newer Antibiotics." He said that dimethyl acetamide had been found suitable as a solvent for the preparation of parenteral solutions of chloramphenicol. A 10 per cent. solution in ethylene glycol was used for the topical treatment of otorrhœa. When the administration of capsules was difficult the bitter taste of the drug could be masked by the use of flavoured syrups. The palmitate ester of chloramphenicol was not bitter and could be administered as a flavoured suspension.

N.H.S. Problems.—A meeting of the Liverpool Chemists' Association and Branch of the Pharmaceutical Society held in Liverpool on January 17 heard an address on "The N.H.S. Problems of the Pharmacist" by Mr. E. A. Brocklehurst (a member of the Society's Council). The speaker discussed problems arising out of the arrears of prescription pricing. Pricing bureaux were, he said, overtaking the arrears, but he expected that, at the present rate, they would not be cleared until spring 1954. The Ministry was anxious to bring in means whereby doctors could obtain supplies of medicines for direct supply to patients. That had been resisted because it was thought that it would be to the disadvantage of the chemist and to the service. Mr. Brocklehurst thought it likely that the doctor's "stock order" would eventually come into being. He said that while he did not like the drug testing scheme, it was better than any alternative that had been considered. He deplored the later opening of chemists. A good service could be given with the existing rota system. He appealed to all

chemists to let the rota be arranged their Pharmaceutical Committee with consideration of the needs of the area, and then stick to it.

Leeds Branch.—A meeting of Leeds Branch of the Pharmaceutical Society was held at Leeds on January 20. Mr. L. W. Ryecroft presiding. Mr. W. Hebden gave an address on "Britain's Heritage." Mr. Hebden showed how interest in genealogy, the history of the British islands, and the basis of British traditions had been aroused when, as commercial traveller calling on chemists throughout the country, he had noticed the unusual names connected with particular parts of the country. Mr. F. J. C. proposed and Mr. T. W. Fisher seconded a vote of thanks. Mr. P. Branson (director of Reynolds & Branson, Ltd.) presented a cup and replica for an annual golf competition to Mr. E. Mann (secretary of the golf section). The chairman announced that the Branch had been successful in securing approval from the Council of the Society of plans for a new college of pharmacy in the proposed new College of Technology in Leeds. He outlined the steps taken and proposed a vote of thanks to Mr. T. Heseltine (a member of Council) for his active co-operation with the branch on that issue and to Messrs. P. Dobson, R. W. Gillham, T. W. Fisher and M. Jackson (members of a special deputation to the Council). Mr. P. Dobson replied. A discussion on "Practical Training and Apprenticeship" took place. Mr. T. W. Fisher moving:

"That it is the opinion of the Leeds Branch of the Pharmaceutical Society that it would be to the practical advantage of all students proceeding direct from Intermediate to diploma course that the final examination should be divided into two parts; the theoretical subjects to be taken before the one year practical training and the practical subjects pharmacaceutics and forensic pharmacy to be taken at the end of that period so ensuring a working knowledge in advance of those key subjects."

Mr. S. Teeman suggested that a B.Pharm or Ph.C. could cope with dispensing after six weeks in a pharmacy, but that view was not accepted by the meeting. Mr. E. Mitchell believed that apprenticeship before qualification was the soundest system. Mr. L. Pothauzer spoke of his difficulties in securing apprenticeship, saying that many pharmacists preferred to train girls who would stay with them for a long time. The meeting approved the motion.

TOPICAL REFLECTIONS

H.S. Economies

When this paragraph appears, the conference of Pharmaceutical Committee representatives announced for February 14 will have been held. Writing before that event, and before the appearance of your third editorial comment (mentioned on p. 8), I need not attempt to guess at coming developments in the National Health Service. Some general considerations, however, underlie the subject, and I should like to call attention to two of them. One is that, being good citizens, panel chemists are as anxious as anyone else to help in curing economy in a service not notable thereto for that virtue. The other is that, contractors under the scheme, chemists could not be rendered relatively worse off whatever administrative changes may be made. In collecting a shilling fee for each prescription form presented, they will link with the police and with Post Office officials in having imposed on them a new duty for which it is difficult to find any other class of bearer. No gain is likely to result; but equity suggests that there should be no loss. In the same issue of the *C. & D.* that contained your second editorial comment on the subject, it was reported (p. 170) that a claim for higher salaries for certain unqualified assistants has been lodged. Other increases in business expenses are practically certain. The suggestion of a correspondent on p. 179 that containers should be supplied free to contractors seems unlikely to be realised soon, if ever. What panel contractors have most to beware of is, I think, cheeseparing in wrong places. Those who are conversant with administrative problems in the service can, no doubt, propose economies that will commend themselves as reasonable. We may hope to hear from them.

Practical Discussions

The three discussions reported on pp. 74-75 are worth examining. From such divergencies of opinion as they disclose truth sometimes emerges with greater clearness than in other circumstances. In this short paragraph I can notice only a few points. How many of your readers could have said, without looking up the names of the present councillors of the Pharmaceutical Society, what the number of those engaged in retail practice is? Now we have it on record that the number is seventeen, of whom six are also members of the

National Pharmaceutical Union Executive. As I have remarked before, it is not desirable that membership of both these bodies should be held at the same time; there are enough good pharmacists in the country to "go round." So I am glad that there are not more of these dual-purpose retailers. At the Kingston-on-Thames meeting, one of a series of annual debates between two associations, there was a lively clash on the recognition of unqualified dispensers by the Pharmaceutical Society. As the vote went in favour of that recognition, I applaud it. Anyone can see that the formulation of conditions for the work of such dispensers would be a task requiring statesmanship. But what dentists did in enlarging their community in 1921 can surely be done, *mutatis mutandis*, by pharmacists in 1952.

Unusual Customers

A reference to *hiera picra* in this section a fortnight ago has brought me a very interesting letter from Mr. J. Carroll Culbert of Belfast. Mr. Culbert writes about two unusual customers, one lay, the other medical, with whom he dealt as an apprentice more than sixty years ago. One episode was a request at the counter by a lady for two ounces of *hiera picra*. Encouraged by the correct pronunciation of the name, he "assumed a certain degree of intelligence on her part," and avoided a weather *cliché*. Instead, he told her that this "most interesting drug" was sold in Rome a thousand years ago, and in Alexandria two thousand years ago. The lady looked at the parcel for a moment or two, handed it back and asked for compound liquorice powder instead, remarking that the *hiera picra* might not be very fresh! The other episode was a visit to the neighbouring countryside in search of *Chelidonium majus* so as to obtain enough juice from it for a local medical practitioner to try in a case of cancer. It appears that a Russian doctor named Denisenko had advocated it. I had either not heard of this use of the greater celandine or had forgotten it. In Holland's translation of Pliny's *Natural History* (1601), its Latin name was traced to the Greek word for a swallow, with the comment "for that the old Swallows with the help of this herb helpe their young ones to see again."

Xrayser

NEW COMPANIES

EPDON, LTD. (P.C.)—Capital £100. To carry on the business of chemists, druggists, etc. Willi Landauer, William L. Berg and Hugh Carmichael, directors. Solicitors: Warmingtons & Trevor Jones, Albany Courtyard, London, W.1.

BENJAMIN (CHEMISTS), LTD. (P.C.)—Capital £100. To carry on the business of manufacturing, photographic and general chemists, etc. Leon Benjamin and Rita Benjamin, directors. R.O.: 48 Chatsworth Road, Clapton, London, E.5.

WALKERS CASTLE PHARMACY, LTD. (P.C.)—Capital £2,000. To carry on the business of retail chemists and druggists, etc. Arthur Walker, M.P.S., and Edith E. Walker, directors. R.O.: 82 Castle Road, Scarborough.

WALKERS VICTORIA PHARMACY, LTD. (P.C.)—Capital £2,000. To carry on the business of retail chemists and druggists, etc. Arthur Walker, M.P.S., and Edith E. Walker, directors. R.O.: 24 Victoria Road, Scarborough.

J. H. G. STUART, LTD. (P.C.)—Capital £1,000. To carry on the business of retail and dispensing chemists and druggists, etc. James H. G. Stuart, M.P.S., and Elizabeth Stuart, Glenshiel, Beverley Grove, Farlington, Hants, directors.

J. G. POWELL (CHEMIST), LTD. (P.C.)—Capital £1,000. To carry on the business of chemists and druggists, etc. John G. Powell, M.P.S., and Harry Ferrie, directors. R.O.: 653 Queens Road, Sheffield, 2.

HULL COD LIVER OILS (FEEDING STUFFS), LTD. (P.C.)—Capital £50,000. Graham Hellyer and Gilbert Hudson, subscribers. The first directors are to be appointed by the Hull Cod Liver Oils, Ltd. R.O.: St. Andrew's Dock, Hull.

G. R. SMEDDLES (CHEMISTS), LTD. (P.C.)—Capital £1,000. To carry on the business of wholesale or retail chemists, druggists, etc. George R. Smeddles, M.P.S. and Allen W. Smeddles, M.P.S., directors. R.O.: 4 Mikasa Street, Walney Island, Barrow in Furness.

Company News

GALA OF LONDON, LTD.—Miss Joan Wilson has been elected to the board.

A. HIRSCH (FILTERIT), LTD.—Mr. J. G. Brown has been appointed to the board.

BOOTS PURE DRUG CO., LTD.—Shareholders are offered one new ordinary share of 5s. each at 16s. per share for every three shares held. In addition, ordinary preference and preferred shareholders may apply for any of the new shares not taken up. The issue will bring in approximately £4 millions.

PETROCHEMICALS, LTD.—The chairman (Sir Robert Renwick) in his review 1950-51 points out that since July 1951 current revenue expenditure (excluding interest) has been covered by current income, but "there will inevitably be a further loss during the current financial year after making provision for depreciation and interest on loans." The company has been granted a further loan of £1 million by the Finance Corporation for Industry of which £700,000 has been used. The remainder is to be taken up by June.

BUSINESS CHANGES

CUSSENS, SONS & CO., LTD., Kersal Vale, Manchester 7, have appointed M. J. B. Llewellyn their representative in the West Riding of Yorkshire, and Mr. C. Hall in the northern counties of England.

MR. K. A. WILLIS, representative of Dalmas, Ltd., Junior Street, Leicester, Kent, Surrey and Sussex, is removing 67 Ewellhurst Road, Ilford, Essex (telephone: Wanstead 3094) on February 23.

W. SUTTON & CO. (Druggists Sundries, London), Ltd., Horseshoe Lane, Enfield, Middlesex, have appointed Mr. D. G. 2 Milton Avenue, Sutton, Surrey, their representative in part of Surrey, Sussex and Hants, and Mr. A. Jennery, The Brook, Rayleigh Road, Eastwood, Essex, in Essex part of Middlesex and Herts.

T. J. SMITH & NEPHEW, LTD., have formed a surgical dressings division to specialise in world marketing of dressings and be responsible for the co-ordination of production, supply and sales. Mr. H. E. Lewis is appointed manager, and Mr. C. L. Pease assistant manager of the division. Also newly formed is an overseas marketing division, which will take charge of sales promotion and marketing in all overseas countries and function separately from the export department (which will concentrate on the administration of the company's overseas business). Mr. H. Buckley is in charge of the export department; Mr. R. Beukers is appointed assistant manager in charge of the overseas marketing division.

LEGAL REPORTS

Unauthorised Penicillin Supply.—At Wisley sheriff court, recently, William Henry Border, a veterinary supply salesman, was sentenced to a fine of £15 or forty days' imprisonment for supplying a Schwinnoch farmer with sixty tubes of penicillin ointment in contravention of the penicillin Act, 1947.

Prison Sentence for Doctor.—At Marybone, London, magistrates' court on February 7, Dr. George Mackie Gibb, 29 Bond Street, was sentenced to four terms of six months' imprisonment to run concurrently (six months all) on charges of obtaining in January a total of 26½ grains of cocaine from chemists, although his authority to possess, procure or prescribe Dangerous Drugs had been withdrawn in January 1949. Notice of appeal was given and the doctor was released on bail in £25. The magistrate, passing sentence, said the case was pathetic, but the accused was a professional man and must have known perfectly well what the consequences would

be to him of deliberately defying the prohibition. The public interest was of greater importance than the misfortune that must fall upon him as a result of the offences. Dr. Gibb had been remanded for the police to inquire if the drugs had been used on the patients for whom they had been prescribed. A detective-sergeant now said that the patients said they had had treatment with the drugs. In reply to the magistrate he said that the removal of the doctor's authority resulted from a conviction in 1949 when he had been fined a total of £150, or six months' imprisonment, for procuring drugs other than those allowed him. In defence of the doctor it was stated that since his conviction in 1949 he had rehabilitated and re-established himself, and his patients thought so highly of him that they were prepared to come forward and say so in court. When the doctor prescribed the drugs he had already applied to the Home Office to have the prohibition removed and believed it would be lifted.

THE WEEK IN PARLIAMENT

By a Member of the Press

THE Attorney General was asked by MR. LESLIE HALE on February 4 what steps was proposed to take to provide security of tenure for occupants of shops and business premises, and when the appropriate legislation would be introduced. MR. JONEL HEALD replied that he could not add anything to a previous reply on the subject. MR. HALE then asked: "Does the Attorney General appreciate that the situation is getting much more serious from the point of view of the shopkeeper; that diminishing stocks and increasing prices are adding very greatly to their burdens?" and was told that the matter was being carefully considered.

Census of Production

MR. J. D. PROFUMO was told by the President of the Board of Trade on February 4 that he was satisfied that the Census of Production reports were substantially accurate. The figures returned were scrutinised and checked at various stages of compilation. The results or estimates obtained from statistical inquiries of that kind were inevitably subject to some degree of error.

MR. W. R. D. PERKINS asked the President of the Board of Trade on February

Gallery, House of Commons

5 if in view of the cuts being made in Government expenditure he would consider abolishing the Census of Production. MR. HENRY STRAUSS (Parliamentary Secretary) replied: No. Censuses of production, which have been taken in this country since 1907, provide information valuable to government and industry. The President is, however, carefully considering the future programme of the Census in order to secure economy in effort, both in industry and in the Board of Trade.

Resale Price Maintenance

MR. F. BESWICK asked the President of the Board of Trade on February 5 "if he will introduce legislation this Session to implement the unanimous recommendations of the Committee on Resale Price Maintenance which issued its report in June 1949, particularly the recommendation that steps be taken to render illegal the application of sanctions that extend beyond the remedies open to an individual producer for any breach of resale price maintenance conditions?" MR. HENRY STRAUSS: No.

The debate on the National Health Service Bill was postponed owing to the death of King George VI.

BIRTHS

EDWARDS.—On February 7, to the wife of Godfrey Edwards, M.P.S., 8 Nevill Road, Rottingdean, Sussex, a son.

GLASS.—At Doriscourt nursing-home, Manchester, on February 10, to Ethel (née Fletcher), wife of Aubrey Glass, M.P.S., 51 Bury Old Road, Prestwich, Manchester, a son.

DEATHS

CLAY.—In Nottingham City Hospital on February 6, Mr. William Joseph Ogle Clay, M.P.S., aged seventy-six. Mr. Clay, who qualified in 1898, had been in business in Nottingham for many years. He was a past secretary of the local branch of the Pharmaceutical Society and secretary of the Pharmaceutical Committee under National Health Insurance. At the time of his death he was employed by Mr. W. J. Appleby, Rawson Street, New Basford, Nottingham.

COE.—At Dingley Dell, Nevill Road, Rottingdean, Sussex, on February 7, Mr. Arthur Edward Coe, aged seventy-eight. Mr. Coe qualified as a chemist and druggist in 1897.

DAKIN.—Recently, Mr. H. D. Dakin, F.R.S., D.Sc., Leeds, B.Sc. Vict.; Hon. D.Sc. Yale; Hon. LL.D. Leeds; Hon. Ph.D. Heidelberg, originator of a solution of hypochlorite and boric acid for dressing wounds, which later became known as Dakin's solution. Born in London in 1880 he was educated in the universities of Leeds and Heidelberg. He worked for some time at the Lister Institute, England. Dakin described the solution in an article in the "British Medical Journal," 1915, II, 318, written from the Herter Laboratory, New York, U.S.A. His original formula was modified by Dr. Carrell and subsequently a number of modifications of the solutions were suggested. Among many honours which he received was that of *Chevalier de la Légion d'Honneur*, Davy medal of the Royal Society, and the Conné medal of the Chemists Club, New York. In 1917 he was elected a Fellow of the Royal Society. Later he became director of the Research Laboratories, Scarborough-on-Hudson, U.S.A., a member of the board of scientific advisers to the Merck Institute of Therapeutic Research, U.S.A. Among his publications are the books *Oxidations and Reductions in Animal Organisms*, and *Handbook of Antiseptics*.

FREMLIN.—On February 9, Mr. Heaver Stuart Fremlin, M.R.C.S., L.R.C.P., D.P.H.R.C.P.S., formerly of the Government Lymph Laboratories, Colindale, London, aged eighty-six.

HARTMANN.—In Switzerland, on February 2, Dr. Max Hartmann (for many years director of pharmaceutical research for Ciba, Ltd., Basle). Born in St. Gallen, Switzerland, in 1884, Dr. Hartmann studied chemistry and obtained his doctorate at Munich. Later he took an active part in Swiss scientific and cultural life. The Swiss Chemical Society made him an honorary member in recognition of his services as treasurer; he was a moving spirit in the establishment of the Swiss Academy, and later was a member of its board, and he devoted much time to foundations for scholarships in biology and medicine and in chemistry. The University of Basle conferred on him the honorary degree of doctor of medicine, and the Swiss Polytechnical School an honorary doctorate in technical science. The establishment as a charitable trust of the Ciba Foundation in London, for the promotion of international co-operation in medical and chemical research, was largely due to his vision. His last visit to Britain (in 1949) was to take part in the Foundation's opening ceremony.

RENNIE.—At Medwyn, Biggar, Lanarks, on February 9, Mr. William Robb Rennie, M.P.S. Mr. Rennie, who was in business under the name John Eunson & Co., 48 Main Street, Biggar, was a son of the late Mr. J. C. Rennie, M.P.S., Wishaw. He qualified in 1925.

SIMPSON.—On February 7, after a short illness, Mr. James Charles Edward Simpson, Ph.D., D.Sc. (director, Medical Research Council group for research in chemotherapy, University of Manchester).

SMEE.—On February 8, Mr. Edward Augustus Smee, managing director of E. A. Smee & Son, Ltd., crude drugs and essential oils merchants, 1 Morocco Street, London, S.E.1, aged eighty-four. Before he founded the company in 1932, Mr. Smee was managing director of Sparks, White & Co., Ltd. Previously he was with Potter & Clarke, Ltd.

TWEEN.—On January 3, Mr. Robert Chandler Tween, M.P.S., 76 Falconer Road, Bushey, Herts, aged eighty. Mr. Tween had been in business at 47 High Street, Bushey, for fifty years.

PERSONALITIES

MISS C. E. CULBERT, M.P.S.N.I. (a past-president of the Ulster Chemists' Association) has been appointed a justice of the peace for the City of Belfast.

MR. CHARLES EGGO, M.P.S., Stirling, addressed the Stirling Free Speech Club recently on his experiences in making pharmaceutical preparations while a prisoner with the Japanese.

DR. E. LESTER SMITH (Glaxo Laboratories, Ltd., Greenford), is the author of a three-page article entitled "Pitfalls in Partition Chromatography" published in the January 12 issue of "Nature."

CAPTAIN GEOFFREY C. H. CRAWSHAY, Bergavenny, has on medical advice resigned from December 31, 1951 the chairmanship of the Welsh Board of Health, which he has held since 1945.

MR. C. G. DRUMMOND (a member of the Executive of the Scottish Department of the Pharmaceutical Society) was the author of a letter published in the "Scotsman" recently dealing with the number of prescriptions issued under the National Health Service and National Health Insurance.

MR. H. E. JOHNSON (at one time a representative of THE CHEMIST AND DRUGGIST) who emigrated to Australia in 1949 for the sake of his son's health, is joining the board of a newly re-formed company, C. Denton Pty., Ltd., indent agents, chemical merchants and manufacturers, 69 York Street, Sydney.

DR. C. H. HAMPSHIRE, C.M.G., M.B., B.S., B.Sc. (chairman, Expert Committee on Unification of Pharmacopœias of the World Health Organisation and a past-secretary of the British Pharmacopœia Commission) contributed an article on the history, composition and uses of the International Pharmacopœia to the October, 1951 issue of the "Chronicle of the World Health Organisation."

MR. J. M. WILLIAMSON, 660 Govan Road, Glasgow, S.W.1, has told the Glasgow Pharmaceutical Committee that he intends to resign from the Committee if, when the proposed charge for prescriptions is put into operation, provision is not made for old age pensioners and people with chronic complaints. Mr. Williamson was secretary of the Committee until his period of office was terminated by the Committee in 1950 over his refusal to agree to a chemists' strike.

COMING EVENTS

Tuesday, February 19

EASTBOURNE BRANCH, PHARMACEUTICAL SOCIETY, Plummer's restaurant, Terminus Road, Eastbourne, at 7.30 p.m. Address by Miss M. A. Burr (a member of the Society's Council).

FINCHLEY AND DISTRICT DIVISION, NORTH LONDON PHARMACEUTICAL ASSOCIATION and BRANCH, Bull and Butcher, Whetstone, Middlesex (Totteridge corner), at 8 p.m. Meeting.

TUNBRIDGE WELLS BRANCH, PHARMACEUTICAL SOCIETY, Kent and Sussex Hospital, Tunbridge Wells, at 7.30 p.m. Mr. S. F. Woodward on "Antibiotics—The Changing Outlook."

WEST MIDDLESEX CHEMISTS' ASSOCIATION and BRANCH, Feathers Hotel, Broadway, Ealing, W.5, at 8 p.m. Members' evening.

Wednesday, February 20

BEDFORDSHIRE BRANCH, PHARMACEUTICAL SOCIETY, Dujon Restaurant, High Street, Bedford, at 7.30 p.m. Film show.

BUSINESS EFFICIENCY EXHIBITION, Bingley Hall, Birmingham. Open until March 1.

IRISH CHEMISTS' GOLFING SOCIETY, Shelbourne Hotel, Dublin. Silver jubilee smoking concert.

PHARMACEUTICAL SOCIETY OF NORTHERN IRELAND, 73 University Street, Belfast, at 8 p.m. Mr. C. Beaven (Parke, Davis & Co., Ltd.) on "The Newer Antibiotics." Also film on Chloromycetin.

SCOTTISH DEPARTMENT, PHARMACEUTICAL SOCIETY, 36 York Place, Edinburgh, at 7.30 p.m. Dr. Walter Blyth (University of Edinburgh) on "Antagonism in Micro-organisms."

SHEFFIELD BRANCH, PHARMACEUTICAL SOCIETY, Grand Hotel, Sheffield, at 7.45 p.m. Dr. W. J. Tindall (Organon Laboratories, Ltd.) on "The History and Development of ACTH."

WESTERN PHARMACISTS' ASSOCIATION and BRANCH, 17 Bloomsbury Square, London, W.C.1, at 7.30 p.m. Mr. T. C. Wood on his recent visit to New Zealand. Also two colour films.

WOLVERHAMPTON CHEMISTS' ASSOCIATION, Y.M.C.A., Stafford Street, Wolverhampton, at 7.30 p.m. Mr. D. W. Hudson (member of the Society's Council) on "Pharmacy: Past, Present and Future."

Thursday, February 21

DUNDEE BRANCH, PHARMACEUTICAL SOCIETY. Mathers Hotel, Whitehall Place, Dundee, at 7.30 p.m. Mr. G. R. Milne (deputy director, Glasgow and West of Scotland Blood Transfusion Service) on "Blood Transfusion" (illustrated).

THAMES VALLEY DISTRICT PHARMACISTS' ASSOCIATION, Kingston Hotel, Kingston-on-Thames, at 7.45 p.m. Annual meeting of National Pharmaceutical Union Branch, address by Mr. J. Wright (assistant secretary, N.P.U.).

Friday, February 22

BIRKENHEAD AND WIRRAL PHARMACISTS' ASSOCIATION, Central Hotel, Birkenhead, at 8 p.m. Film by Mr. C. W. Turner (T. J. Smith & Nephew, Ltd.) and address by Dr. Stuart D. McAusland on "Treatment of Varicose Ulcers."

CROYDON PHARMACISTS' ASSOCIATION and BRANCH, Co-operative Hall, Croydon, at 8 p.m. Film, "The Beauties of Switzerland."

NATIONAL ASSOCIATION OF WOMEN PHARMACISTS, Resolutions for annual general meeting on April 23 to reach Miss A. P. McBride, 14 Highbury Park, London, N.5, by February 23.

TRADE NOTES

Last Days of Bonus Offer.—Addis, Ltd., Hertford, give a reminder that the Addis nailbrush bonus offer ends on February 29.

One-pound Jars.—Ciba Laboratories, Ltd., Horsham, Sussex, announce that Antistin cream and ointment are now available in 1-lb. jars.

Bonus Parcels.—W. B. Cartwright, Ltd., Rawdon, Leeds, have sent to all chemists details of a special display bonus offer on mixed parcels of Moorlands indigestion tablets, Penetrol inhalant and Urillac during February, March and April.

Mouse Exterminator.—Sorex (London), Ltd., 105 Tonbridge Road, Maidstone, Kent, are the manufacturers of Squeak mouse destroyer, the active principle of which is an anti-coagulant of dicoumarin type. Squeak does not contaminate food and is safe for children and pets.

Now Tax-free.—Abbott Laboratories, Ltd., 3 Wadsworth Road, Perivale, Middlesex, announce that their product Bejectal with liver was exempted from purchase tax on January 25. The preparation is a sterile vitamin B complex solution for intramuscular injection, available in 10-c.c. vials.

Dollar Export Inquiries.—The Commercial Relations and Exports Department of the Board of Trade give information that United Kingdom manufacturers are invited to tender for certain types of equipment for a new building for the Saskatoon General Hospital, Canada, including a hydro-therapy bath, orthopaedic equipment, operating tables, autoclaves and instrument sterilisers. Full details are obtainable from the hospital superintendent (Mr. Muirhead). Inquirers are asked to advise the Department that they have communicated with the Hospital.

Eastern Tour.—Mr. L. A. Rose, M.I.Ex., a director of H. & T. Kirby & Co., Ltd., Newman House, Belton Road, Willesden Green, London, N.W.2, is leaving London by air early in March to visit the company's agents and clients in Bahrain, Pakistan, India, Burma, Thailand, Hong Kong, Malaya, Indonesia, Australia, Ceylon, Lebanon, Syria, Iraq, Cyprus and Greece. Whilst Mr. Rose will be actively engaged in the interests of his own company, he is prepared to be of service to any firm in the trade marketing non-competitive products.

NEW PRODUCTS AND PACKS

Larger Size.—Riker Laboratories, Ltd., 29 Kirkwhite Street, Nottingham, have introduced a 500-tablet pack of Veriloil.

Repackaged.—Eade's pills now appear in a moulded screw-capped flat bottle with new label design. The makers are Eade Pills, Ltd., 232 Goswell Road, London E.C.1.

A New Bottle.—On another page illustrated the new bottle adopted by Newton, Chambers & Co., Ltd., Thorcliffe, Sheffield, for Izal germicide. The new bottle has a white plastic cap and detachable sprinkler top.

New Glycerin Container.—A new container—the Robbican—has been adopted for their chemically pure glycerin by Glycerine, Ltd., Unilever House, London, E.C.4. Recently developed by



Robinson & Co., Ltd., Hull, the can is clean, easy pourer, specially constructed to prevent liquid accumulating on the top." allows the last drop to be emptied, and easy to carry and handy for packing tiers. Trial tests have proved that there is no contamination or decomposition during three months' storage. Electrically welded short body seams and tightly double-seamed ends make the can exceptionally strong, and recessed side panels afford protection to printed matter. Extra packing is unnecessary for rail transit. The handle is welded on, and the screw neck is pressed into the corner of the can, with no projection on the inside.

Pharmaceutical Machinery

WITH SPECIAL REFERENCE TO FILLING, MIXING AND AMPOULING

FILLING BY MACHINE

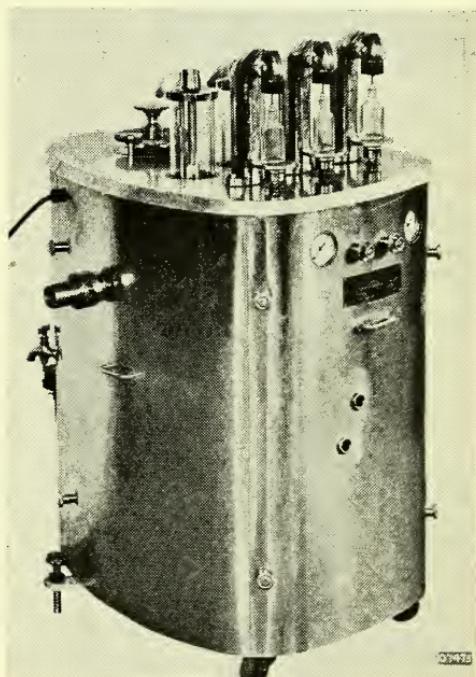
THE act of transferring specific quantities of a pharmaceutical substance—solid, semi-solid or liquid—from a bulk container to smaller ones for distribution to the public is one of the most fundamental routine operations in any branch of pharmacy.

The simplest liquid filling machines work by gravity. An example is the semi-automatic unit manufactured by the ADELPHI MANUFACTURING CO., LTD., 20 Duncan Terrace, London, N.1. Hand-operated, it is suitable for the smaller manufacturer and consists of a 4-gall. covered, non-corrodible tank mounted on a stand with a valve connected to it by a flexible tube. The valve is mounted on an adjustable bracket so that different sizes of bottle may be filled, and it is opened by upward pressure of a bottle. Four interchangeable nozzles (outside diameters: 2 mm., $\frac{1}{8}$ in., $\frac{1}{4}$ in. and $\frac{3}{8}$ in.) are supplied. The smallest is suitable for sprinkler-neck bottles. The apparatus is easy to clean, and will fill a 6-oz. bottle in two seconds. The company also market filling valves for connection to a user's own containers: one variety fitted to the unit complete with one nozzle of any size, and a second, a special large valve (with $\frac{3}{8}$ -in. nozzle) for filling large bottles with viscous liquids.

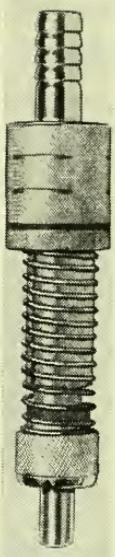
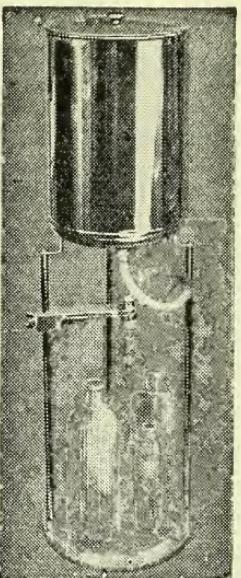
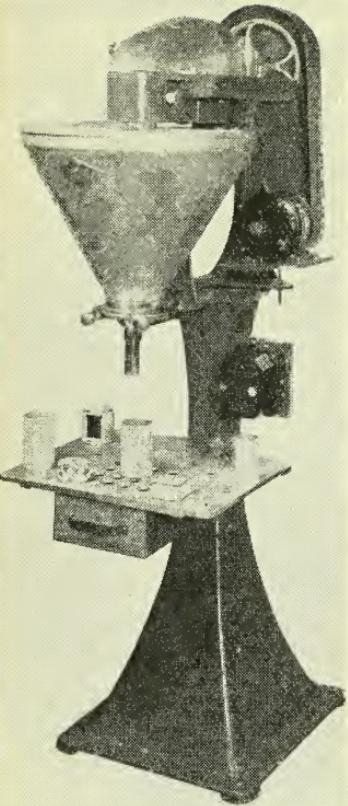
ALBRO FILLERS & ENGINEERING CO., LTD., Watsons Road, Wood Green, London, N.22, manufacture a machine for filling tins with a wide range of liquids. It operates by gravity, the cut-off of the flow being effected by the weight in the final container, which stands on a scale-pan. The machine is available in four sizes. No. 2, the one illustrated on p. 205, deals with sizes of tin ranging from $\frac{1}{4}$ lb. to 7 lb. Its speed on 1-lb. tins is 1,800 per hour. The filler is suitable for disinfectants. All weighing parts can be removed without tools for cleaning.

Gravity-fed fillers with multiple action are manufactured by H. STRUNCK & CO., Cologne (British distributors: CHARLES E. DOUGLAS & CO., LTD., 86 Strand, London, W.C.2). The linear filling machines, FE2 and FE4, have two and four filling

heads respectively, arranged in line and fed from the same supply. They fill bottles automatically to a pre-determined level and require only one operator. The FE2 is designed to fill bottles of a capacity 0.6 to 12 cu. in. at the rate of 200-300 per hour and weighs 40 lb. The FE4 is fitted with an arrangement for holding the bottles against the filling heads, fills the same sizes of bottle as the FE2 at the rate of 500-600 per hour, and weighs 55 lb. Messrs. Strunck also make a rotary gravity filler FH8 with eight filling heads, adjustable for size of bottle, arranged in a circle. The machine fills to a pre-determined level. It requires one operator, is specially suitable for frothy liquids, and has platforms to hold the bottles against the heads. Its output is about 11 gall. per hour (into 3- to 60-cu-in. bottles) and weighs



Auto-Vac vacuum filler.



Above: Adelphi semi-automatic unit and filling valve.

Left: Alite loose filling machine.

air and then allowing them to fill with liquid. Vacuum filling has the advantages that the supply container does not have to be raised and that cracked or broken bottles cannot be filled. On the other hand they have more working parts than gravity fed machines, and their initial cost is greater. The Vacfil filler, manufactured by BUSBY,

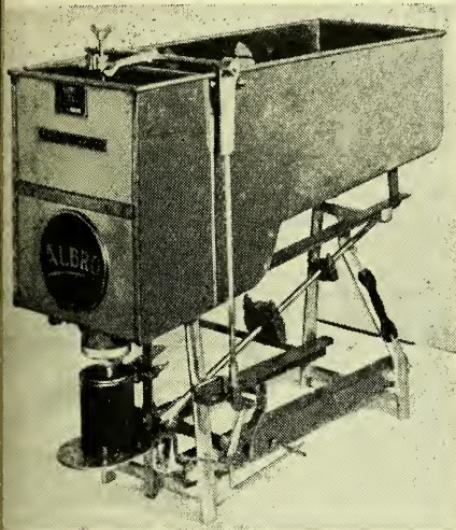
WINTER & Co., LTD., 9 Andover Place, London, N.W.6, is a twin-head machine in which stainless steel is used for all metal parts touched by the liquid. It is designed to deal with a variety of liquids and semi-solids, including toilet preparations, pharmaceuticals, etc. Containers can be filled quickly to a pre-determined height as they are placed beneath the filling nozzle. When the liquid reaches the required height the excess passes to an interceptor chamber, and, when the bottle is withdrawn, passes back to the bulk container. Almost any size or shape of container can be accommodated, and attachments are available for filling plastic bottles. Filling can be done direct from user's bulk container. The complete unit includes a $\frac{1}{4}$ -h.p. electric motor and pump unit and different-sized interchangeable nozzles.

132 lb. A pump-fed rotary filling machine FE8 is also made by Messrs. Strunck. It has eight filling heads arranged in a circle, and the pump is driven by a $\frac{1}{2}$ -h.p. motor. It can be handled by one operator, is fitted with a transparent plastic cover, and fills 0.3- to 12-cu.-in. bottles, with any free-flowing liquid, to a predetermined level at the rate of 1,000 to 1,500 per hour. It weighs 308 lb.

JOHN P. JACKSON & Co., LTD., 18 Earle Street, Liverpool, 3, manufacture the Express filling machine, which consists of a raised covered tank, connecting tube and valve, all mounted on a frame designed to stand on the floor. The machine can handle a variety of liquids of different viscosities, is operated by foot control, is adjustable for various heights of bottle, and has nozzles of different sizes. The valve is easily dismantled for cleaning, but usually a rinse with hot water suffices. For very viscous liquids like castor oil or

glycerin, a gas or electrically heated coil can be supplied. The machine can also be fed from a cask or other bulk container, and containers of various sizes can be supplied. Speeds of over 2,000 bottles per hour are possible. A smaller type of the Express is the bench model supplied with a 4-gall. container. It is adjustable for height, has three different size nozzles, and can be supplied either hand- or foot-operated.

Machines are also designed that work by exhausting the bottles of



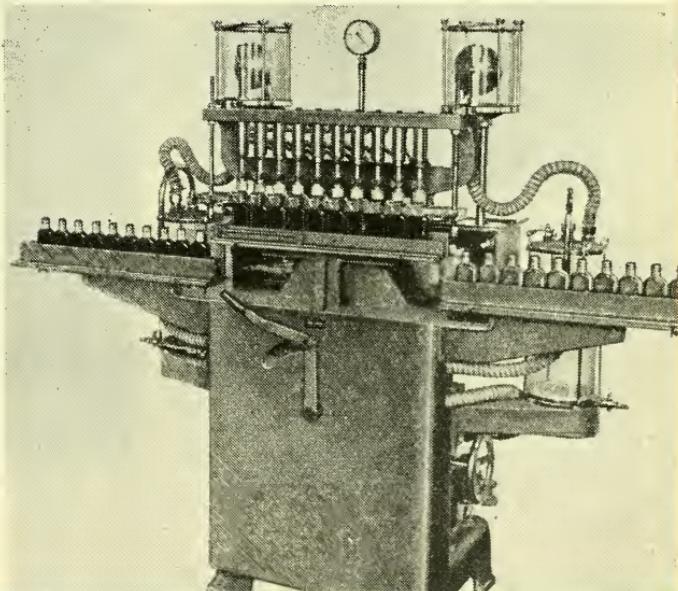
Albro gravity weighing filler.

The output of the three-head machine is 3,000 and of the ten-head 4,000 bottles per hour. The operator pushes a row of bottles on to a platform which is raised by means of the handle seen in the fore of the illustration below. The bottles are then automatically filled to the required level, lowered and removed. The minimum diameter of the mouth and maximum capacity of bottles for which the machine caters are $\frac{1}{16}$ in. and 60 cu. in. respectively. ALBRO FILLERS & ENGINEERING Co., LTD., manufacture a four-head semi-automatic vacuum-operated filler suitable for, among other things, syrups, emulsions, acids and liquids with suspended solids. Bottles are placed on vacuum-operated rising platforms, and the bottles are filled to a pre-determined level. The filling heads and platforms work in rotation, so that one platform is down for changing while three are working. Different sizes and shapes of bottles can be filled on the same machine, and the output (for 6 oz. bottles) is 200 oz. per hour. The company also make a junior vacuum filler for the same range of liquids. It has one head and eight to ten gross of 1-4-oz.

bottles can be filled per hour. A single-head vacuum-filling machine made by S. W. PEARSON, LTD., Peckleton Common, Earl Shilton, Leicester, has an average output of eight gross per hour of 6-oz. bottles or twelve gross per hour of 1-oz. bottles. Designed to be mounted on a bench, it is fed from a stock container at floor level. The volume of liquid delivered is determined by fitting the required number of rubber washers to the nozzle, and remains constant through any number of filling operations.

A multiple head but portable vacuum filler, the Auto-Vac, is made by ROBERTS' PATENT FILLING MACHINE Co., LTD., Deane Road, Bolton. The machine is totally enclosed and fitted with stainless steel covers and is designed to fill all types and sizes of bottles at speeds from thirty-five per minute. Bottles are filled by vacuum from the user's supply vessel on floor level, or where preferred the machine can be designed to connect up to a gravity supply and in that event a small ball-valve tank is incorporated inside the machine frame: the vacuum system is thereby maintained and the three heads work in turn continuously. The operator places empty bottles on stands beneath the heads. Each stand rises in turn, and after the bottle on it has been filled to the required level the operator removes it. A feature of the machine is that the vacuum circuit lifting the stands is different from the filling vacuum circuit, and both circuits can be adjusted independently to operate at

Strunck FV 10 multiple vacuum filler.



the most suitable degree of vacuum. Thus a large heavy bottle can be lifted and filled with a liquid liable to froth that only requires a small vacuum.

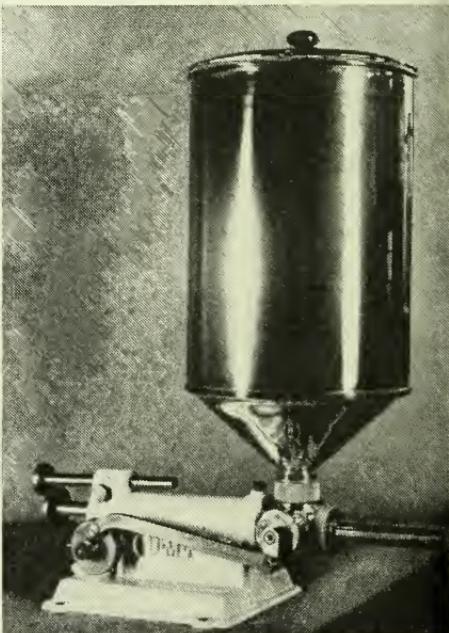
ALITE MACHINES, LTD., Pixmore Avenue, Letchworth, Herts, cater for a complete range of powder and semi-solid filling machines. Their standard unit loose filling machine delivers quantities of from $\frac{1}{2}$ oz. to over 3 lb., the delivery being controlled by a clutch-and-brake mechanism. The material to be filled is fed into a hopper in which a stirrer—slowly moving to avoid fluffing—directs it to a spiral worm that is set to deliver the required quantity. For smaller quantities (from 25 mgm. to 8 gm.) an ampoule-filling machine may be used in which a cross spiral feeds to a glass hopper from the bulk supply, which in turn feeds to a small accurate worm. For larger filling runs the standard machine may be used in conjunction with a conveyor belt, giving a completely automatic filling run. Two or more machines may be fed together by use of a distributor and elevator unit, which holds a 150 or 300 lb. capacity distributor, and the feed is completely automatic.

Ointment preparations that are filled at a temperature above that of the room can be dealt with by the use of the Mono-Don shallow-tin-filling machine manufactured by ROBERTS' PATENT FILLING MACHINE Co., LTD. The machine is designed to be mounted on a table, and has an electrically heated thermostatically controlled water jacket. The unit travels on rails over trays of empty containers and fills them cleanly and accurately.

A machine for cartoning automatically weighed amounts of powder is manufactured by the AUTOMATIC WEIGHING & PACKING MACHINE Co., Caroline Street, Birmingham, 3. Gusseted bags are fed flat into the machine and filled with material from a hopper. The filled bag is inserted into a formed and bottom sealed carton (also fed flat), the bag is folded and tucked in. The pack is discharged after top-sealing on to a conveyor where pressure is maintained for a short time to ensure setting of the glue. The operations are carried out automatically at the rate of seventy per minute. The machine can handle two different materials or two different sizes of pack simultaneously (thirty to thirty-five per minute each) and is suitable for milk powders, proprietary foods, etc. Minimum and maximum sizes handled are $3 \times 2\frac{1}{2} \times 1\frac{1}{2}$ and $4 \times 6 \times 3\frac{1}{4}$ in. respectively. A

vacuum-operated machine for filling tins, cartons, drums, etc., with a pre-determined weight of powder is made by ALBRO FILLERS & ENGINEERING Co., LTD. The machine picks up the material from a container at floor level or the hopper can be gravity-filled from a higher floor. Up to 1,800 packages per hour can be filled, as the machine does not cause dust it is suitable for deleterious or abrasive powders. It is hand- or pedal-operated.

UNIVERSAL METAL PRODUCTS, LTD, Langley Road, Pendleton, Salford, Lancashire, make machines for filling, closing and crimping metal-foil tubes. Each operation is performed by a separate pedal-operated machine, and the three machines can be accommodated on a table 6 x 2 ft. The filling machine delivers any multiple of $\frac{1}{2}$ oz. up to 3 oz. of a substance of any viscosity. The hopper is supplied in either two- or five-gall. capacity. Interchangeable standard nozzles for filling tubes, tins, jars, etc., are supplied. The closing machine can be adjusted for different sizes of tubes and for width of fold. The crimping machine is fitted with a stopping device to enable different thicknesses to be crimped without danger of cutting. The output for the battery of machines is between 1,000 and 1,500 tubes per hour.



Metal-foil tube filling machine.

MACHINERY AND PLANT NOTES

Soap-making Plant.—Bamag, Ltd., Ricckett Street, London, S.W.6, undertake the construction of complete plant for the soap and detergent industries.

Fluid Agitation.—L. A. Mitchell, Ltd., 37 Peter Street, Manchester, 2, offer a range of mixers for handling liquids of every consistency in the most economical way.

Collapsible Tubes.—Impax Works, Browells Lane, Feltham, Middlesex, offer collapsible tubes from stock in lots of one gross and over for makers of creams and ointments.

Tablet Machines.—A range of rotary and single-punch tablet machines, as well as ointment and mixing and grinding mills, is offered by S. W. Wilkinson & Co., Ltd., Western Road, Leicester.

High-vacuum Equipment.—Apparatus for providing high vacuum in hospitals and laboratories is described in a bulletin issued by W. Edwards & Co. (London), Ltd., Worsley Bridge Road, London, S.E.26.

Plant Bought.—George Cohen, Sons & Co., Ltd., Stanningley, nr. Leeds, offer to purchase mixers, extractors, disintegrators and other chemical plant. An announcement appears on another page.

Laboratory and Pilot Plant.—Kestner Evaporator & Engineering Co., Ltd., 5 Grosvenor Gardens, London, S.W.1, offer a range of small-scale unit plants embodying the principal features of the company's industrial plants (driers, stills, autoclaves, reaction vessels, stirrers and agitators).

Fully Automatic Filling.—On another page the Banister Street Works, Ltd., 18 De Beauvoir Road, London, N.1, illustrate and describe their Centrac No. 5 fully automatic power-driven filling machine for discharging adjustable and accurate quantities of semi-solid or semi-liquid preparations into all shapes of containers.

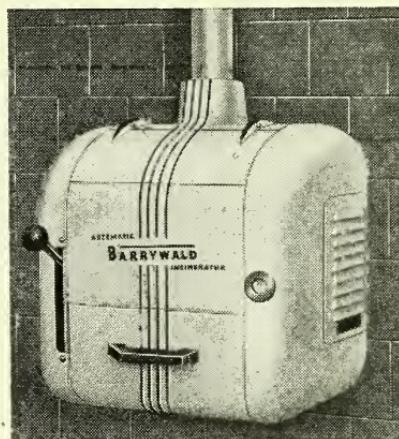
Sterilisation in the Laboratory.—Joseph Sankey & Sons, Ltd., Albert Street Works, Bilston, Staffs, recommend their Pentecon autoclave for laboratory use. The autoclave is thermostatically controlled in operation, is made from a special aluminium alloy for lightness, and is economical to operate.

Effective Emulsification.—Ormerod Engineers, Ltd., Shawclough, Rochdale, Lancs, in their new Q.P. homogeniser (hand, belt- or motor-driven), offer an opportunity to

secure stable consistency in an emulsified product at a high standard of emulsification. The gearbox is totally enclosed, and the homogeniser is easy to clean, simple and economical to operate.

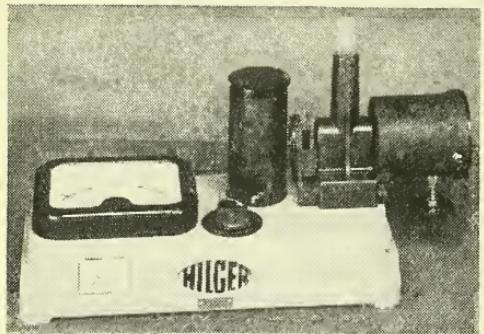
Hand-operated Filling Machines.—Flexile Metal Co., Ltd., 796 Holloway Road, London, N.19, illustrate on another page their Flexile hand-operated filling machine. Pump and valve are operated by a single hand lever, and the machine fills all sizes of tube from $\frac{1}{8}$ to $1\frac{1}{4}$ in. in diameter, one operator being able to handle twenty-five to thirty gross of tubes daily. With special nozzles the machine can be adapted to fill jars and bottles.

Automatic Incinerator.—For the hygienic disposal of surgical dressings, sanitary towels, etc., Saniguard Appliances, Ltd., 62 London Wall, London, E.C.2, offer the Barrywald "safety" automatic incinerator. The Barrywald is operated by any employee of a hospital or works by merely depressing a lever, and requires no further attention. The lever operates a mechanism that opens the outer and fume



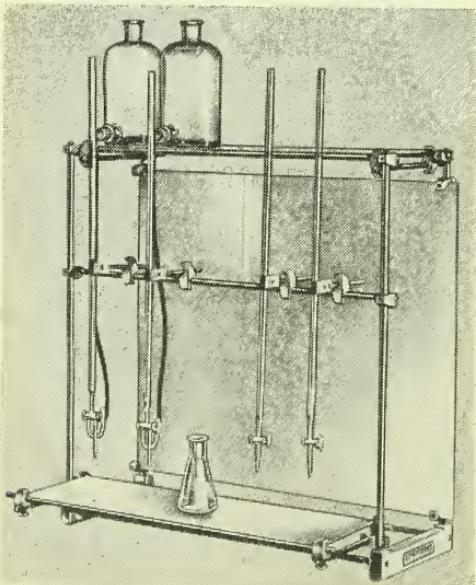
covers, rotates a safety trap to the receiving position, clears the combustion chamber of any ash remaining from a previous insertion, and tilts a mercury vacuum switch that turns on the current. A time-control unit returns the mercury switch to the "off" position in 5-7 minutes. Depressing the lever resets the time-control unit to its starting position regardless of the fact that the incinerator may be already in operation, and thus ensures full burning time for every article.

LABORATORY APPARATUS



Colorimetric Determinations in the Laboratory.—For biochemical, clinical and chemical colorimetric determinations in the laboratory the Biochem absorptiometer (above) manufactured by Hilger & Watts, Ltd., 98 St. Pancras Way, London, N.W.1, is accurate, rapid and simple.

Bench-top "Scaffolding."—Nivoc Kemiframe, manufactured by W. J. George & Becker, Ltd., 17 Hatton Wall, London, E.C.1, consists of rigid $\frac{1}{2}$ -in. diameter rods in a range of standard sizes, held together by a patented connector; and a variety of accessories, enabling almost any chemical set-up, permanent or



temporary, to be assembled. Rods and components can be added or removed without disturbing the remainder, and

assemblies may be mounted in bench sockets, wall sockets or on bench feet. An illustrated price list of components and accessories is available from the company's offices at Ealing Road, Alperton, Middlesex, or 157 Great Charles Street, Birmingham.

Mechanical Mixing in the Laboratory.—For mixing quantities of material up to one gallon, there is available from F. & R. M. Harris (Birmingham) Ltd., 17 Doe Street, Birmingham, 4, the Chemix Minor electrically motored mixer illustrated. The mixer has a patent variable-speed control giving constant speed in the face of variations of load. A handle on the motor enables the unit to be instantly removed from the stand. A stainless-steel marine-type propeller is fitted as standard.

Safety Syringe Pipettes.—Produced in large quantities for use with radioactive solutions in atomic research the Exelo safety pipette (right) manufactured by W. G. Flair & Sons, Ltd., 39 Waterloo Road, London, E.C.2, has many uses in other fields. The makers consider that the new type pipette illustrated may ultimately replace the ordinary pipette for many requirements. Though it has been on the market only a few months it is already in use, it is stated, in hundreds of laboratories. The Exelo safety pipette is designed to overcome difficulties and objections inherent in the use of normal type of pipettes, from which liquids, having to be drawn up by suction, frequently enter or vaporise into the mouth of the operator with unpleasant and perhaps dangerous results. The pumping device consists of a parallel ground-glass open-ended piston joined to the top of the pipette, which can be in any size or type of normal range, and fitting closely inside a movable glass barrel with a small nozzle at the top. With the forefinger closing the nozzle, the barrel is drawn up along the piston, creating suction to draw the liquid into the pipette. By releasing the finger from the nozzle the barrel may be returned to its original position and the action repeated until the required amount of liquid is in the pipette. Then, with the barrel returned to its closed position, the level of liquid may be controlled by the finger on the nozzle as with

US & EQUIPMENT

a normal pipette. The whole operation can be carried out quickly and conveniently. The type of pumping device fitted with the pipette has the important advantage of not interfering with its normal outflow, thus enabling a high degree of accuracy to be obtained as well as ensuring the protection of the operator from noxious liquids and vapours. It is made entirely of borosilicate glass, which can easily be cleaned and sterilised. Lubrication with a small amount of grease is essential.

Cleaning Laboratory Glassware. — For cleaning test tubes, Petri dishes, small bottles, vials and other laboratory equipment, Thomas Hill Engineering Co. (Hull), Ltd., 247 Beverley Road, Hull, have constructed the machine illustrated. It provides thorough detergent treatment at a temperature rising to 180°F. if necessary, followed by



fresh water rinsing and steam sterilising required. No handling of the glassware takes place between the processes.

Heating by Electric Mantle. — As a heating element for processes carried out in glass or metal flasks on laboratory, pilot plant or small manufacturing scale, the electric mantle has advantages that have brought it into widespread use. The standard Isomantle made by Isopad, Ltd., 13 Bensemont Road, London, N.W.3, consists essentially of fully insulated heating ele-

ments attached to a cloth woven from high temperature glass yarn (standing up to 550°C.), and converted into a hemispherical lagging or mantle into which is inserted the base of the glass flask containing the liquid to be heated. In fact, more than



half the flask is covered by the Isomantle which, made in a range of sizes, is resilient enough to give a snug fit in spite of slight variations in flask sizes. To each mantle is fitted a two-pin plug. For high efficiency and to avoid "bumping" and reduce breakages to a minimum, the heating element gives the heaviest wattage loading at the lower part of the flask. A number of variants are issued for special functions. The illustration shows a laboratory outfit comprising Multisize Isomantles for flasks between 50-mil and 2,000-mil capacity, Isotape, and an energy regulator with neon lights.

Apparatus for Chromatography. — Interchangeable laboratory glassware manufactured by Quickfit & Quartz, Ltd., Quickfit Works, Stone, Staffs, includes a range of chromatographic adsorption columns and components in semi-micro and laboratory preparation sizes.

Laboratory Agitator. — Fluid Equipment Co., Ltd., 83 Seafield Road, London, N.11, offer immediate delivery of their Fluid agitator-emulsifier, laboratory model. All parts that come into contact with fluid are of stainless steel, and a built-in control gives variable speeds between twenty and 2,000 revolutions per minute. Larger models are also available.

AMPOULING AND VIALLING MACHINERY

IN ampouling operations the length of run varies widely, from a few dozen in a hospital or small business or for ampoules made to a special formula, to as many million on a large manufacturing scale. The machinery made to cater for such a range differs as widely in design.

Ampoule Cutting

A single block for ampoule-cutting for short runs is made by the AUTOMATIC WEIGHING & PACKING MACHINE Co., Caroline Street, Birmingham, 3. The block is adjustable to accommodate ampoules of any size up to 30 c.c., and the cutting is done by drawing the neck by hand across a V-shaped abrasive stone. Considerable speeds can be obtained with little practice. For longer runs the company makes an electrically driven automatic machine capable of a speed of 45-50 ampoules per minute. The ampoules are fed by hand to a rack that carries them to a diamond scorer, against which they are rotated, or to a cutting wheel. Scored at the same height, the ampoules are passed to an arm that breaks off the neck and directs the cut ampoules down a chute into a container. The use of a diamond scorer minimises the risk of contaminating the ampoule with abrasive or glass powder when the neck is broken. For manufacturers who wish to store scored ampoules ready for use, there is available a scoring machine similar in principle, but not equipped with the neck-breaking device and working at a faster rate. The machines take ampoules of from $\frac{1}{2}$ to 10 c.c. capacity.

A semi-automatic cutter is made by APIS ENGINEERING & RESEARCH, LTD., 136 Pinner Road, Northwood, Middlesex. The ampoule to be cut is inserted between rubber rollers and rotated once under a diamond point, making a fine score round the neck. The output varies from 1,200 to 1,800 ampoules per hour, according to the operator's skill.

For the difficult but important operation of washing ampoules the AUTOMATIC WEIGHING & PACKING MACHINE Co., make a simple speedy machine with a capacity of 200 ampoules per minute. It is operated by negative pressure—an electrically operated pump giving a 24-sq.-in. vacuum—and is controlled with one lever. The cut ampoules are placed in a tray, which is then locked in the vacuum chamber. By use of the control lever, the chamber is

alternately evacuated and flooded with distilled water or other wash liquid until controlled quantity has been used. The forceful entry of liquid into the ampoule necks sprays it to the tip of the ampoule ensuring complete cleansing.

A simple ampoule washing machine with a speed of approximately sixty ampoules per minute is made by ALITE MACHINES, LTD., Pixmore Avenue, Letchworth, Herts. Ampoules are placed on washing needles in banks of twenty, the banks are rotated into the machine for two washings and drying.

Automatic Washing

REJAFIX, LTD., 81 Fulham High Street, London, S.W.6, are agents for a convenient type of ampoule washer made by Pop & Sons, Inc., New York. Completely automatic, it has a capacity of 3,000 ampoules or vials per hour. In their passage through the machine the containers are treated eight "washing stations," so that a variety of cleansing materials and sequences can be used. The wash fluid include water, compressed air, detergent and steam. The machine was illustrated in the report of the Anglo-American Productivity Team on packaging.

A fully automatic vial cleaning machine capable of an output of 10,000—5 vials per hour is made by the THO. HILL ENGINEERING CO. (HULL), LTD., Beverley Road, Hull. The vials need to be placed in an upright position in handfuls on the belt, the machine washes, sorts and feeds them on to six separate rows automatically. The normal wash treatment consists of three re-circulating rinses from a stainless-steel feed tank, air ejection of the rinsing water, followed by a further distilled water rinsing and air drying.

Another automatic machine, with a capacity of 12,000 per hour, using one operator, is made by H. STRUNK & CO. (British agents: CHARLES DOUGLAS & CO., LTD., 86 Strand, London, W.C.2). Ampoules inverted over narrow tubes in trays are rotated round the machine, and subjected to fifteen washes. The details of the washing sequence are pre-set, and as the machine is locked in the setting the required washing is carried out. A hand-operated model, comprising one tray, has a capacity of 1,000 ampoules per hour.

ling

APIS ENGINEERING AND RESEARCH, LTD., er specially for problems arising in small medium runs of ampoule and vial ing. Their machines are controlled by electro-magnetically operated valves — a ture that makes for simplicity of assem- and ease of sterilisation. Closed circuit del No. 2 can be used for filling quanti- of from 0.1 to 20 mils with an accuracy ± 0.02 per cent.

Hypodermic-syringe-type cylinders of ous sizes may be fitted to the flow circ- t. Each cylinder has a floating piston at a distance of travel that can be ad- ed to deliver the required volume. The chine works with only a slight head of pressure and is not affected by a falling ad. Incoming liquid forces the floating ton along the cylinder, causing the re- uired volume of liquid to be ejected at the jet. When the valves are reversed ele- magnetically, the piston is forced back, in ejecting the same volume of liquid. The valves are made of magnetic stainless el. The switching mechanism may be erated manually or automatically. ong the numerous attachments that can fitted is a "clean filler" device that viates the need of threading the ampoule to the filling needle and thus acceler- es the process. The company's liquid penser No. 6 measures by accurately troling the time of flow of the liquid der constant conditions. The timing is tronic. The volume delivered is on- lled by a knob and dial. The machine adaptible for a wide variety of blems, and with aqueous solutions accurate to ± 0.5 per cent. The andard model is fitted with three agnetically controlled valve-systems, which can be used singly or together. Among e jobs the machine will do is the "dis- nsing" of different volumes of different uids into the same vial at the same time. The ampoule and vial-filling machines de by the AUTOMATIC WEIGHING & CKING Co. use a standard range of pre- ion glass or stainless steel syringe-bars and hollow plungers fitted with valves measurement. They are adjusted aply. The syringes and the standard ing needles are made in the factory. The simplest machine is hand or treadle erated. A guide assists the operator in cing the ampoule over the filling edle. The normal range of ampoules ed by the machine is from $\frac{1}{2}$ to 30 c.c., t the unit can be equipped to carry

two syringes, giving a maximum output of up to 60 c.c.

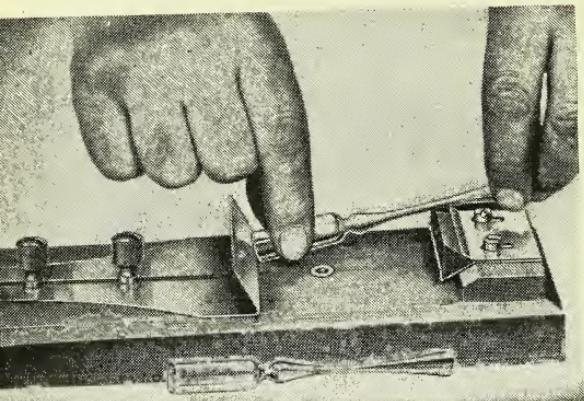
A simple hand-operated filling machine is also made by MARK-O-PRINT, LTD., Putney Bridge Station, London, S.W.6. Named the Fillmaster, the machine is suitable both for short runs and for longer runs, at up to 1,000 per hour according to size of ampoule and skill of the operator. Measurement is made with an easily adjustable calibrated syringe device, and simple construction facilitates a quick changeover from one size of syringe to another. A glass valve system ensures that the dis- charge of liquid is rapid and regular. The machine fills ampoules varying in size from 1 to 40 c.c.

Filling and Sealing

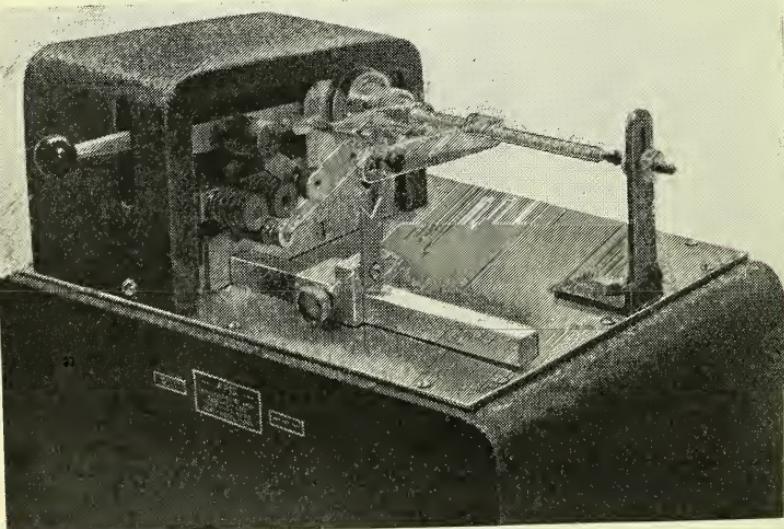
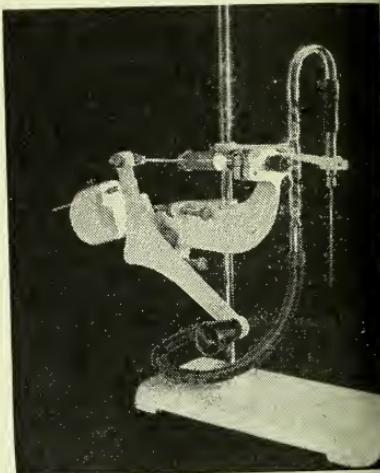
Ampoule filling and sealing may frequently be done on the same machine. On a semi-automatic machine made by the AUTOMATIC WEIGHING & PACKING MACHINE, Co., the two processes of lowering the needle into the cut ampoule and operating the syringe are done mechanically. The operator has only to place the cut ampoules upon a special platform, transfer them when filled to the sealing jets on the opposite side of the machine, and then remove the sealed ampoules.

For long runs the company has been manufacturing and keeping up to date for many years an automatic (Auto Ampak) ampoule filling machine. It is popular in many countries, including America, where ampouling problems are reported to be specially difficult, and has an output of 1,200-1,800 per hour. Cut and washed ampoules drop from the stainless steel magazine of the machine on to a mechanically operated rack, which moves them to- wards the filling position. There each is filled with the pre-set quantity of liquid through a needle which descends into the ampoule. A "feeler" device checks that an ampoule is in position before the liquid is delivered. The filled ampoules are then passed towards the sealing unit, and after sealing are ejected on to a tray. There are three speeds of operation. An automatic ampoule filling and sealing machine is also made by H. STRUNCK & Co. A semi-automatic machine for ampoule sealing by the drawing-off method is made by APIS ENGINEERING AND RESEARCH, LTD. The sealing is done automatically and the work of the operator is limited to inserting and removing the ampoule.

MACHINES FOR SHORT AND LONG RUNS

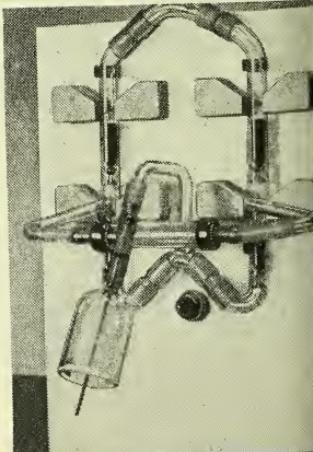
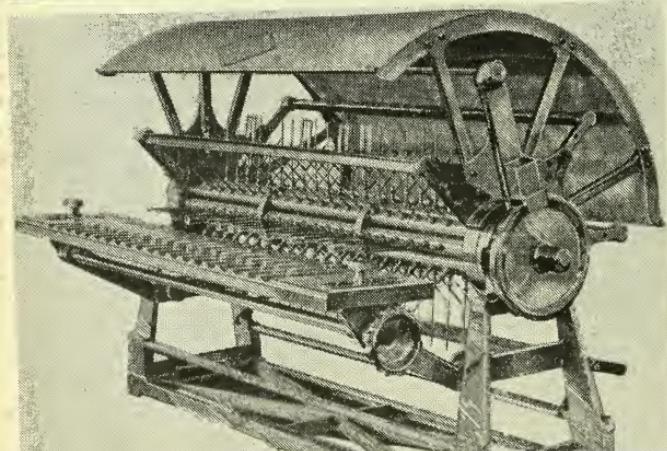


Above: Hand ampoule-cutter by Automatic Filling & Packing Machinery Co. Right: Hand-operated ampoule or vial filler by Mark-O-Print, Ltd.

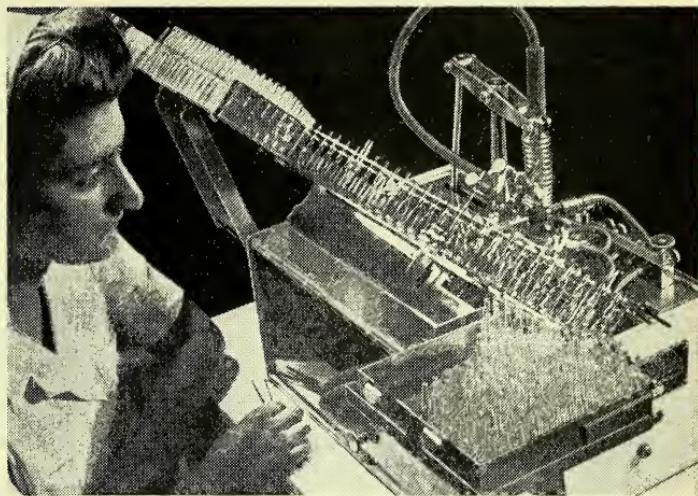
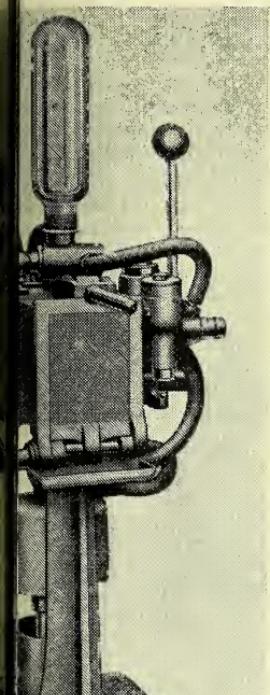


Left: Semi-automatic ampoule-cutter by Apis Engineering & Research, Ltd. Right: Apis No. 2 semi-automatic ampoule or vial filler showing wedge-shaped electrodes and, within the tube, the magnetically controlled valves. Below, left: A washer by Alite Mfg. Ltd. The ampoules are washed over the washing tube in the horizontal rack and are then rotated in the machine for drying processes.

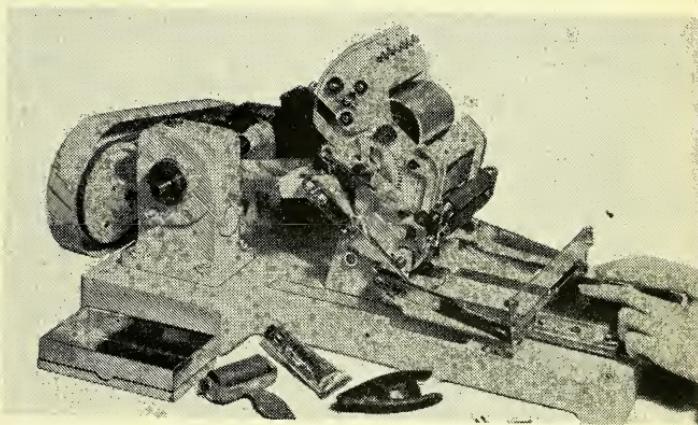
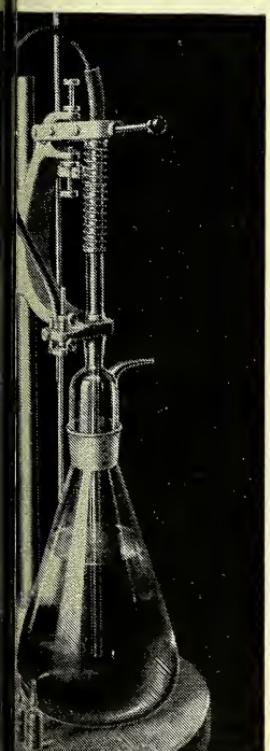
Opposite page, upper picture: A hand-operated washer by Automatic Filling & Packing Machinery Co. showing, right, the lever. Lower left-picture: The company's treadle-operated filling machine assembled for hand filling.



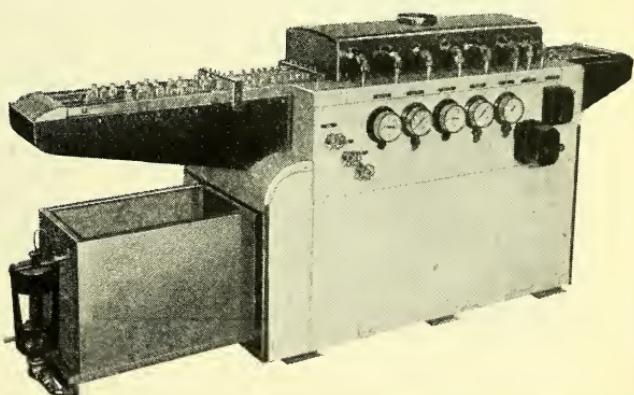
AMPOULE AND VIAL HANDLING PROCESSES



Above: Automatic filler and sealer by Automatic Filling & Packing Machinery Co. Below: Semi-automatic ampoule and vial printer by Rejafix, Ltd.



Below: Automatic vial washer by Thomas Hill Engineering Co. (Hull), Ltd.



Filling Sterile Powders

Filling of sterile powders such as antibiotics into vials requires highly specialised machinery. A machine for the purpose made by the AUTOMATIC FILLING & PACKING MACHINERY Co. has followed the spread of manufacture of antibiotics round the world. It has a range of delivery of 0.05 to 5.00 gm., with an accuracy often of ± 0.5 per cent. All parts that come into contact with the sterile powder may be detached quickly for sterilising. Sterile powder is filled from a sterile stock bottle into a feed attachment, whence, helped if necessary by a vibrating tongue placed into the bottle, it is fed along a funnel into a glass hopper. There a stirrer feeds the powder down to a stainless steel worm. Several designs of worm are available so that one may be chosen that delivers the required weight of powder. The required quantity is discharged intermittently down a vibrating funnel, and so to the sterilised vials. The vials may be fed to the machine by an operator using aseptic technique or by a machine, which, in addition, caps and spins metal seals on to them.

A semi-automatic machine for filling sterile powder into vials made by ALITE MACHINES, LTD., has a delivery of 25 mgm. to 8 gm. All parts that come into contact with the sterile powder are easily detachable for sterilising. The powder is fed by a worm drive into a glass hopper and from there to a delivery spiral. The amount of powder discharged and the interval between the delivery of the charges are controlled easily by one setting.

For spinning the metal seals on to vials in short or medium runs the AUTOMATIC WEIGHING & PACKING MACHINE Co. make a hand fed machine capable of an output of thirty vials per minute. A semi-automatic vial capping machine with an output of 1,200-2,000 per hour is made by APIS ENGINEERING AND RESEARCH, LTD. The pressure on the spinning rollers is maintained by adjustable springs.

A new antibiotics vial-capping machine has been constructed by FORDS (FINSBURY), LTD., Chantry Avenue, Kempston, Bedford. It is designed as four units, which may be installed as a complete chain of plant, or separately. The units are:—

Cap-making Press, which runs at speeds up to 10,000 per hour, and embodies a mechanical counter, safety-clutch and electronic control that switches off the machine when the reel of foil is exhausted.

Hopper Feed, which arranges the caps

the same way round and feeds them into a delivery chute. Electronic controls switch off the hopper feed when the delivery chute is full, restarting it when the cap level falls; switch off the whole plant when the hopper is empty; and indicate all faults by a written warning.

Cap Applier, working at speeds up to 6,000 per hour. An ejector throws any vial fitted with a distorted cap, a control stops the machine and a flash warning on the control panel if a vial comes through without either a rubung or a cap.

Spinner, a three-head rotary device spins the caps on to the vials, the wheel being spring-loaded to avoid damage or breakage. The unit operates at speed up to 6,000 per hour.

Labelling

Among the most important ampoule labelling developments in recent years is the use of ceramic inks which are burnt into the ampoule glass and become durable (like the pattern on china). This type of labelling precludes such risks as the accidental mixing of different batches of ampoules while autoclaving. REED LTD., make a range of machines for the process to give runs of any length. These all normally operate by a system of "set" printing, an ink image from type printers' block being laid down on a rubber pad and then picked up from the pad by the ampoule. The ceramic ink is burnt into the glass in a small muffler or other furnace. The simplest model—Sussex, suitable for hospitals and laboratories—is without mechanical aids. The printing area is $4\frac{3}{4} \times 3$ in. and the ink may be fired in a bunsen burner flame. The company's Middlesex models, which are hand-operated, embody mechanical mechanism for inking, etc., speeding the operation to about 800 prints per hour. A power-driven model, the Essex 1a, has an output of 1,200 per hour. A fully automatic development of the model has an output of 2,400 per hour. For burning-in, ampoules may be transported on the conveyor on which they leave the machine through a lehr furnace. Various colour ceramic links are available, and the chines can also be used with air-dried inks, and for printing paper labels, etc.

D. TRAPOW & Co. LTD., 113 Regent Park Road, London, N.W.1, and STRUNCK & Co. also make machines for applying paper labels.

GRINDING, SIFTING & MIXING MACHINERY

ESTLE and mortar are the symbols of pharmacy, but their place is taken, when almost anything more ambitious than extemporaneous prescription is being reckled, by machines, of which a host of specially designed examples are offered by manufacturers.

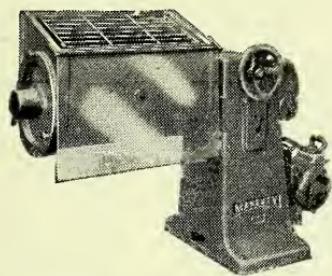
The end-runner mill is essentially a mechanical mortar and pestle, the mortar rotating and the pestle (or more accurately the "muller" or roller) revolving by friction as the mortar turns. The edge-runner mill is usually much larger. It consists of two heavy steel or granite rollers on an axle running through a vertical shaft, which rotates and thus sets the rollers moving. An adaptation of that principle is involved in the August-Mpson Mix-mullers which are used for all types of mixing of dry, semi-plastic and pasty materials. They are supplied in capacity ranges from $\frac{1}{10}$ to over 20 cu. ft. (800 lb. "flour," approximately) per batch, in corrosion resistant material. The mullers, which are adjustable for height from the bottom of the pan, can be supplied in different weights. Special heating or cooling jackets can be provided. So also can vacuum attachments, dust cover, etc., be fitted to suit the customer's requirements. Mechanical discharge and three-speed drive is fitted to the model 00 for laboratory and pilot plant work. Automatic loading and discharge devices can be fitted. The manufacturers are AUGUST'S, LTD., Halifax.

Ball mills are based on a principle of grinding by impact and friction, by means of a number of steel, porcelain, or rubber balls in a rotating drum, the fineness of the powder produced from the machine being dependent upon the time of milling and weight and size of the balls. The lining may be of metal, rubber or, in the smaller mills, porcelain. Manufacturers include WILLIAM GARDNER & SONS (GLOUCESTER), LTD., Gloucester, whose porcelain cylinder mills are made in various units containing from one pot upwards, the pots held by metal strips in metal frames set in a cast-iron stand. The whole frame revolves under drive by an electric motor, etc., one row being connected to the other by chain drive.

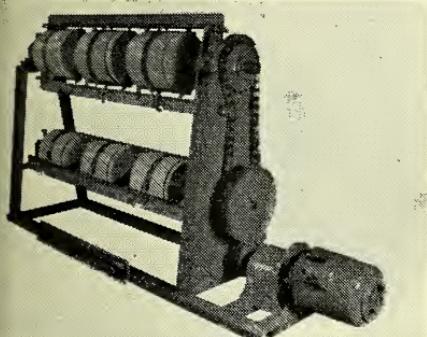
Disintegrators, which are used for grinding such

hard drugs as *nux vomica*, nutmegs, etc., consist of from four to six beaters attached to a boss on a central spindle, which revolves at approximately 3,000 revolutions per minute and which carries the heads of the beaters round near the edge of the chamber containing them. The material to be ground is fed down on top of the beaters, carried through screens in the base of the machine, and discharged to a reception chamber. Among manufacturers are the PASCALL ENGINEERING CO., LTD., 114 Lisson Grove, London, N.W.1, and WILLIAM GARDNER & SONS (GLOUCESTER), LTD., who make machines with beater-chamber diameter from 12 to 54 in., and with speeds of from 5,000 to 1,300 revolutions per minute.

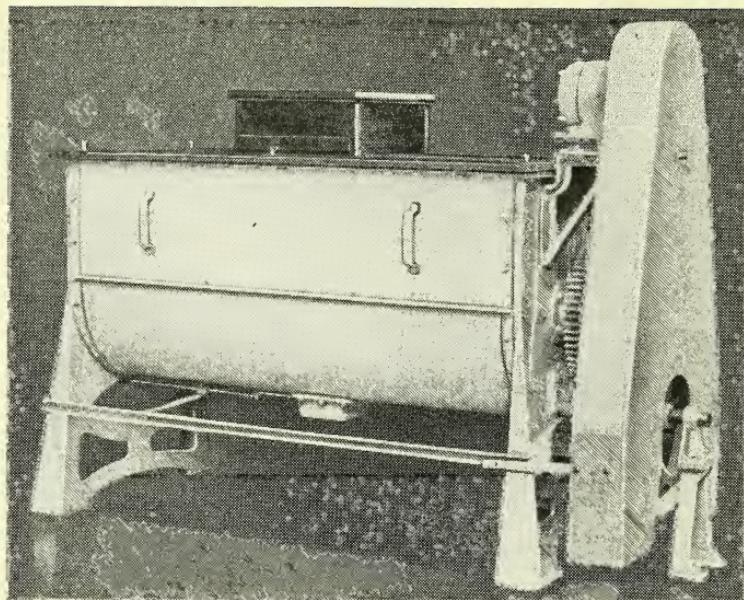
Dust is the bugbear of all mixing processes involving powders, and protection can be given to motors by mounting them inside the casing of the machine. Alternatively they may be mounted away from the floor, as is done in the case of the machines made by ALITE MACHINES, LTD., Pixmore Avenue, Letchworth, Herts. The company's mixers are of 100-lb. to 2 tons batch capacity, and sifting and mixing machines of similar capacities are offered. Mixing arms of special design convey the materials to be mixed from end to end of the chamber. In an upper compartment of the sifter and mixer, the materials are



Manesty granulating mixer



Gardner six-pot ball mill



Alite mixer showing electric motor (top right hand corner)

first blended with worm blades, then discharged into a sifter where the powder is fed by a series of small (and easily replaceable) brushes, through a wire mesh into the lower section, where it is mixed with agitators of types to suit different powders. All parts are accessible from the front and easily removed for cleaning. The machine has a capacity of normally two to three batches per hour. The standard model is made in mild steel but stainless steel, aluminium or any other metal can be substituted to special order. The machine can be fitted with pulley drive.

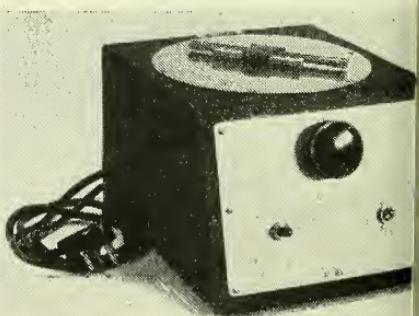
Belt driven or direct motor driven Atlas mixers, and sifters and mixers, are made by GEORGE PORTEUS & SONS (LEEDS), LTD., Leeds Bridge Works, Leeds, 10, in stainless steel or non-ferrous metals. The mixer is made in capacities of from 1 to 100 cu. ft. and the sifter and mixer in capacities of from 1 to 56 cu. ft. The 1 and 2 cu. ft. capacity machines can be supplied for hand power if required. The mixing trough in all machines is built of thick steel plate rolled into a "U" shaped trough, bolted to strong cast-iron end frames, all finished flush at the top to receive cover or sifter. The end frames have glands and stuffing boxes filled with engine packings to prevent leakage of powder along the agitator shaft.

The patent agitator consists of an equal number of right and left-hand spiral blades which are carried by cast-iron cross arms from

the agitator shaft. The spiral blades of streamline design and self-clean without any projection on which the ingredients may build. The mixing of the ingredients is accomplished by a smooth and properly balanced rotation of the spiral blades, each turn making equal displacement right and left during each revolution, the ingredients remaining level throughout the whole of the mixing and discharging operations, without

sign of banking up at the ends or over outlet. The controller spiral blades of agitator fitting closely to the surface of the pan ensures clean and complete charge, this is regulated by the amount opening the operator chooses to have, continues steadily until the machine is entirely emptied. The body of the machine is provided with a discharge outlet, a lever controlled slide, the outlet case being arranged to enclose the slide and obviate scatter or blowout.

An automatic feed hopper is provided with the sifter and mixer, and an oscillation shaft is driven by machine sprocket wheels with Renolds roller case enclosed in sheet steel case. Thus the



Apis magnetic stirrer

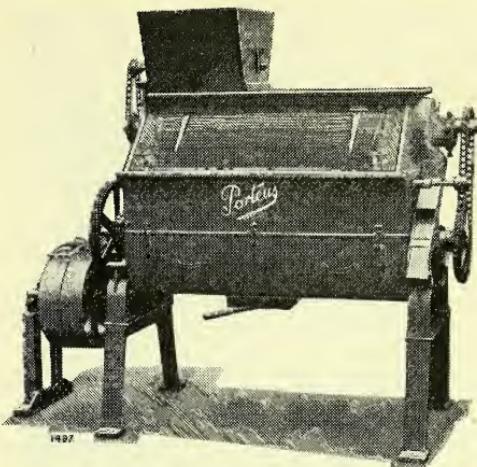


Apex liquid mixer

Specially designed for mixing powders, moist masses, the H stainless steel mixer made by MANESTY MACHINES, LTD., Eke, Liverpool, 19, has several novel features. The actual (trough-like) mixing amber projects from a cast-iron cabinet. The space between the floor and the mixing chamber is unimpeded, aiding removal of contents since a container can be placed completely under the body. Emptying is simple: a handwheel-operated discharge device turns over the mixing compartment. A safety guard (made from stainless steel) just inside the container is fitted with an inter-locking device which stops the motor when the guard is opened. The mixing process can be observed through a transparent 'plastic' dust cover, which is hinged, so that solutions can be added through the guard while the mixer is running. All parts that come into contact with powder are made from stainless steel. The dust cover on the mixing trough is easily removed and the paddle withdrawn. The cast-iron cabinet contains the drive for the paddles, emptying handwheel and starter for the motor which it supports.

APEX CONSTRUCTION, LTD., make a variety of liquid mixers that consist essentially of a motor, the spindle of which is coupled to a long shaft fitted with

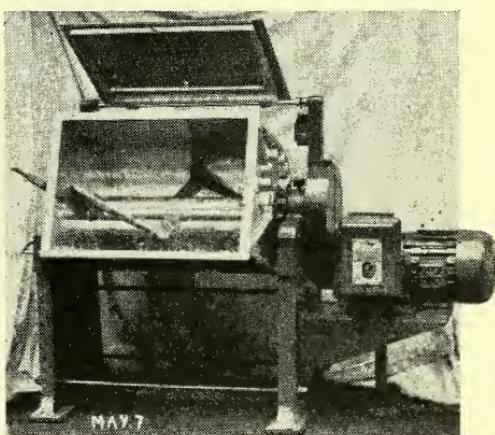
gear is not interfered with when removing either the brushes or the sieve. The brushes are similarly driven from the agitator shaft. When the bristles wear, brush stocks can be adjusted, so that maximum sifting efficiency is maintained. The sieve frame is removable from the front, through the sloping cover, without removing any driving gear or any other part of the machine. Machines with a charge capacity of up to 9.2 cu. ft. can be fitted with a hinged pan.



Porteus sifter and mixer

paddles. The LI(458/A2/50) is designed for small production and laboratory batches up to 30 gall. It has a telescopic shaft, a special universal clamp incorporating a carrying handle and can be fitted with a speed control. Granulating mixer type 49 (May 7) is widely used for mixing binders with powders prior to granulation, and also for mixing lubricants with finished granules. It can be used, however, for other work such as mixing light pastes and creams. Sizes range from 4 gall. upwards. The address of the company is 15 Soho Square, London, W.1.

Particularly suitable for stirring liquids that have to be handled under pressure or vacuum is the Apis magnetic stirrer made by APIS ENGINEERING & RESEARCH, LTD.,



Apex granulating mixer

136 Pinner Road, Northwood, Middlesex. It will stir viscous liquids in any glass or similar vessel ranging from small beakers to 20-litre flasks. The stirrer bar, which is covered with a layer of polythene, is inserted in the liquid and revolves at the bottom of the vessel (which stands on a special platform) at a speed which is controlled from the front panel.

For mixing of pastes and liquids up to 5 gall. the Chemix chemical mixer made by ADELPHI MANUFACTURING CO., LTD., 20 Duncan Terrace, London, N.1, is suitable. The machine consists of a base plate with vertical arm which carries the mixing head, which can be lowered into the mixing vessel standing on the base plate. The parts which come into contact with the ingredients are of stainless steel. The motor of $\frac{1}{8}$ h.p. uses a 240-volt a.c. supply and is capable of varying speeds from 150

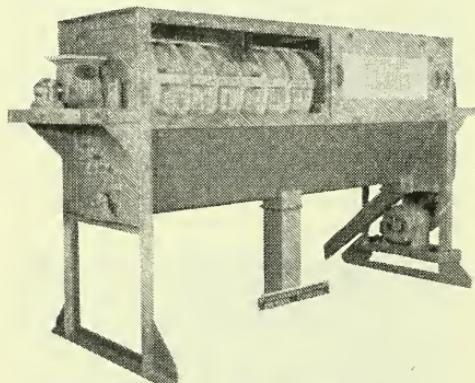
to 2,000 revolutions per minute.

Electro-magnetically operated vibr screen sifters are made by PODMORE'S GINEERS), LTD., Pyenest Street, She Stoke-on-Trent. Series S.W. in singl multi-deck for sifting suspensions ha welded steel frame covered with alumir The lawn cloth is mounted in a cast minimum frame attached to vibrator with studs, for quick change. Series deal with dry materials in bulk at of up to 4 tons per hour. Totally enc screens can be supplied. The Pod high-speed mixer is for mixing and bing fluids and suspensions. The imp on a vertical shaft, is driven by a t enclosed motor, and is guarded shroud that also provides a uniform bulence in the aluminium alloy bowl base of which has a diaphragm outlet Models without the bowl are made.

A NEW POLICY AND BETTER MACHIN

Changes at the works of William Gardner (Gloucester), Ltd

A NEW policy aimed at producing machines "streamlined" both inside and out is being put into effect by William Gardner (Gloucester), Ltd., Bristol Road, Gloucester.



Quick Change dresser

Since 1860, when the business was founded, it has built up a reputation for the durability of its cast-iron-and-wood sifting and mixing machines. Testimony to their durability lies in the fact that machines that have been in service for over twenty years are received back by the company for overhaul. The new policy will mean quite literally going from strength to strength, for from now on the machines are to be made of welded steel.

The policy adopted is an outcome of

the purchase of the business in 19 the Gloucester Railway Carriage & V Co., Ltd., which acquired it in or use to full advantage facilities ava in subsidiary companies. To gain tha the whole works, from stores to m shops, is being reorganised. The machine shop has only recently been completely refloored, and the machin constructing the mixers are being powered and laid out in accordance modern practice. Production has bee going all the time with minimum inti on, and the effects of the improvem out are beginning to be seen in inc efficiency, greater ease of working, a duced costs.

Among the best known of the com products is the patent Rapid sifter mixer. In that machine, as in any device, ease of cleaning is an imp consideration, since the same machi often to be used for widely different So crevices into which powder car must be kept to a minimum, and v steel construction ensures that i There is also advantage in easy ac and removal of parts. In the new of the Rapid machine an end-p speedily removed by the operat simply unscrewing four hand-whee the smooth welded-steel agitators drawn. Complicated decoupling fr power unit and gearing is eliminate the aid of a mechanic is not require other modification has placed the

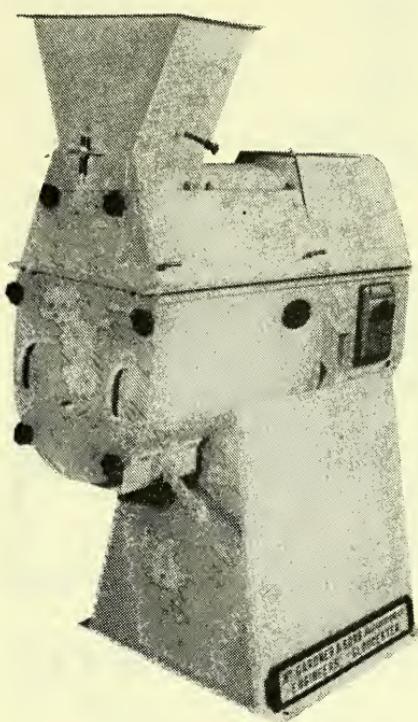
outlet outside the legs of the machine that the outputs from a row of ines can be collected along one un-upted gangway. Machines of capa- up to 7.5 cu. ft. (300 lb. of "flour") designed with built-in starter and d motor directly coupled to the agita- shaft. (Above that size, built-in motors to be unwieldy and uneconomic.) ishes for the sifter units are made in cial department of the works. The that hold the bristles are usually od for lightness, but for certain pur- (as for milk products), where fre- washing is necessary, aluminum is aterial of choice. The brushes are all filled with tufts of bristle, making virtual impossibility for the bristles me loose and contaminate the batch oduct. Refilling of used brushes is carried out, probably the most stren- part of the operation being the re- of the worn tufts, so strongly are secured with wire within the stock. different designs of brush are made it the product. Agitators are also llly designed for the job.

Experimental Laboratory

feature of the works is an experimen- batory that is being organised to with customers' own materials in to find the most suitable machine. eneral, mixing and sifting machines ade to deal with batches of powder om 15 lb. to 2 tons, although much machines constructed on the same ples are made to special order.

A sifting/spraying/mixing machine is up of three distinct parts, plus a t hopper that feeds the material to fter. The sifter consists of a cylinder- cage within which revolves a special that screens the powder through the to meet a spray of finely atomised les of the liquid to be incorporated. sprayed powder falls to the mixing h where the agitators revolve, mixing product thoroughly in a comparatively time. Removal of the mixed powderough a special outlet actuated by a conveniently to hand. "Tailings" directed by the worm-like action of rush in the sifter unit to the end e mesh, which opens into a chute which they fall. The (optional) unit is situated between the sifter and the mixer compartments. The spray- pparatus comprises a self-contained ressor unit, motor driven, supplying ressed air to the patent atomising

nozzle, the purpose of the separate motor being to eliminate waste when the sprayer is not in use. The mixer unit



Rapid sifter and mixer

can also be obtained separately. For dealing with amounts of material up to $\frac{3}{8}$ cu. ft., there is available a "portable" laboratory model that uses a single phase motor and that can be worked off the lighting supply.

Powder dressers manufactured by the company are similar to the sifters, except that they are intended for fine powders (such as toilet powders) and in place of brushes in the sifter section they employ beaters that throw the powder on to the mesh, which may be a 120 silk screen. The blades of the beater are equal in length to the mesh and are radial from the shaft to which they are affixed by rods. The Quick Change dresser has a special barrel-type sieve unit, the sections of which can be easily dismantled when a different mesh is required.

The company also produces gas, electric or steam driers for removal of excess moisture from powders.



LABELS and SEALS of Distinction

Special designs or stock wordings
for all kinds of preparations

High-class Labels in Continental

style for home and export trade

Specialists in Labels of quality
by every process

William Sessions Ltd

THE EBOR PRESS—YORK



Still the lowest price for large or
small quantities.

THE WALLIS LABORATORY LTD.

Actual Makers

58 King George's Avenue, Watford, Herts.

TRAGACANTH

SPECIALISTS IN B.P. POWDER
SAMPLES AND PRICES ON REQUEST
FREUDENTHEIL, SMITH & CO., 16 Philpo Lane,
London, E.C.3
MANsion House 1924 & 6600 Estd. 1826

THE NEW ANTISEPTIC LIQUID DENTURE CLEANSER
CLEANS PLASTIC DENTURES
INSTANTLY

ODEDENT

1/9 and 2/9 per bottle
11/6 and 18/- per doz.

Direct or through your wholesaler (+½ tax)
THE ODEDENT CO. 49a High Street, Walton-on-Thames

“RODINE”^{REGD.}
THE RAPID RAT REMOVER

Always in demand!
T. HARLEY LTD., PERTH, SCOTLAND

INFORMATION WANTED

The Editor would appreciate information
about suppliers of the following items:

PREGLAN CEPHONIN tabs
COWTAN JOHNNIE products (toilet holdall)

CARBROMICIL

STYLEX COMBRUSH (Petrofuel Products, Ltd.—
address wanted)



F “99,” available in Capsule, Liquid
Ointment forms, is a concentrate
essential fatty acids of the highest pu
and standardised biological activity, p
ing most successful in the treatmer

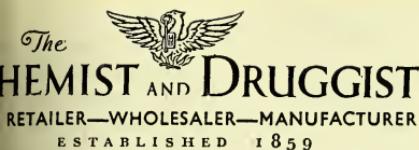
LEG ULCERS
ADULT ECZEMA
INFANTILE ECZEM
ACNE ROSACEA
FURUNCULOSIS
SKIN LESIONS

F 99

International Laboratories

18 Old Town, London, S.W.

MACaulay 3481



ulates throughout the Pharmaceutical, Chemical, Drug, Essential Oil, Perfumery, Cosmetic, Toilet Preparation and allied Trades throughout the World

cial organ of The Pharmaceutical Society of Ireland, The Pharmaceutical Society of Northern Ireland, The Chemists' Druggists' Society of Ireland and of Chemists' Societies in the Empire.

CLVII FEBRUARY 16, 1952 No. 3756

Prescribing Under Scrutiny

analysing several thousand National Health Service prescriptions (p. 224) Professor Dunlop, of the University of Edinburgh and the Pharmacopœia Commission, performed a valuable service that is to be followed up. A weakness in survey is, undoubtedly, that the prescriptions came from fewer than eighteen pharmacies and add up to a total easily in the monthly output of one or two sole contractors with large turnovers. Nevertheless the fact that the author's figure for frequency of prescribing of tonics (21 per cent. for September) corresponds well with the 18 per cent. recorded in sample analyses referred by the Comptroller and Auditor General (see p. 229), testifies to the careful selection of samples by the Central Pricing Committee and the accurate scrutiny by the team under Professor Dunlop. The results of his analysis are summarised elsewhere. Here we wish to deal with his general conclusions.

The day of the "elaborate prescription," Dr. Dunlop, has gone, but the pendulum may now have swung too far the other way. In the medical curriculum stress must be laid on the principles of simple prescribing. What is needed is that the prescriber should know enough about the properties of the drug he prescribes to be able to distinguish critically between those available for his purpose, whether proprietary or official. If the young graduate goes into practice without adequate

knowledge of applied pharmacology he becomes the prey of the advertiser in the sense that he cannot distinguish between the valuable and the less desirable proprietary. When that process reaches its logical development some such situation arises as is currently reported from America, where—admittedly under a non-State system of medicine—the average prescription cost has risen to a point at which patients are abstaining from calling on their doctors for advice. Under a National Health Service it is no whit less important, if the service is not to topple over from excessive costs that nobody sees the way to remedy, that prescribers should be critically informed on pharmacology and therapeutics.

Contracting Chemists and Economy Cuts—3

In previous articles we have considered chemists' remuneration under the National Health Service and shown that contractors have already suffered more than their share of economies. It is, however, possible to approach the provision of a pharmaceutical service at an earlier stage and take account of the medical practitioner's responsibility for the orders he issues on the national funds.

There are perhaps directions in which doctors might be encouraged to practise greater economies in medicaments they order for their patients than are at present usual. Sometimes it would seem that the quantity ordered for a patient is governed more by pressure on a practitioner's time than by actual and immediate need of the patient. There may be occasions on which these quantities—calculated to last until the next visit—could be reduced. Nor do doctors always realise the high cost of lint, wool and other dressings. Smaller quantities of these might be given on occasion without depriving the patient of what is actually necessary.

A memorandum from the Birmingham Executive Council (C. & D., January 26, p. 122) suggests that doctors should be encouraged to prescribe National Formulary preparations more freely in areas where it is found that they do not do so. The memorandum also suggests that, as a

measure to reduce costs, consultants and medical officers should be persuaded not to advise or prescribe expensive proprietary medicines as to do so causes embarrassment to general practitioners. Executive Councils are urged to support officially doctors who have resisted unreasonable demands from their patients, and the public should be encouraged to buy at their own expense a reasonable supply of the common household remedies.

Speciality Medicines

At Manchester recently Miss Russell-Smith (Ministry of Health) discussed with pharmacists the rising costs of prescriptions, adding that they were probably due to increases in the prescribing of speciality medicines. That question is not quite so simple, or the potential saving so great, as may appear. A correspondent in the "Lancet" recently, referring to the steep rise in total cost of proprietary medicines prescribed under N.H.S. during the past three years, estimated the cost to the nation of those prescriptions at about £8 millions yearly. He argues that, when those which have no official (and cheaper) equivalent are excluded, the saving effected might not exceed £2 millions. Against that comparatively small saving would have to be set several serious disadvantages. The cut would damage research by manufacturing chemists, impose more work on doctors in writing out prescriptions in full, create a bad impression on the public, who have been led to believe that all medicines are available for their treatment, and seriously check a substantial and growing export trade which, in the first eleven months of 1951, amounted to £30 millions. On the authority of the secretary of the Association of British Pharmaceutical Industry the cost of "ethical" proprietaries may be taken as approximately 2 per cent. of the taxpayers' total drug bill, and no really effective means of reducing costs can be established so long as the drive for economy is concentrated on the prescribing of proprietaries ignoring the remaining 98 per cent. of the cost of the service.

In considering checks on doctors' prescribing and cuts in chemists' charges, it is pertinent to note that medical practitioners

in the service, through their official representatives, are putting forward demand for increased capitation fees, and that chemists similarly, as already mentioned, have mandated the central contractors' committee to claim an increase in dispensing fees from April. The National Pharmaceutical Union is busy preparing statistics and collecting facts to support that claim and contracting chemists are expected to take a firm stand on a matter which, they believe, has not in the past received adequate consideration from the Government side.

It is right that the question of the prescribing of proprietaries should receive the careful attention of the Government, and some economies are likely from the steps already taken by the Ministry. But in this brief review we have shown why no spectacular savings can be made in the pharmaceutical service without singling out contractors for sacrifices not demanded from other members of the community.

The method of retrenchment that suggests itself as a reasonable temporary measure is the imposition of a general charge for each prescription. That method has been adopted. It is certainly unpopular but the alternative might be to reduce the content of the health service, a re-grade step that nobody wants taken.

Mechanising Pharmacy

THE principal recommendation made by the pharmaceutical Productivity Team was that there should be more mechanisation in the British pharmaceutical industry. With increasing specialisation of pharmaceutical processes, and a consequent widening in the variety of machinery, a careful selection is necessary. In reviewing it on other pages we describe latest developments in filling; grinding and mixing; and ampoule and vial handling machinery. In an endeavour to help all users of these machines examples of hand operated, semi-automatic, and fully-automatic power-driven models have been included where practicable. A review of the British pharmaceutical machinery industry shows that it is steadily growing in size and importance, and in addition is contributing significantly to the country's export trade and prestige abroad.

CORRESPONDENCE

The Shilling Levy: A Meeting

SIR,—The shilling levy on prescriptions is a retrograde step, which now puts the lock back to 1910 for the insured person. inevitably the main sufferers will be those sections of the community least able to defend themselves—the children, the sick, and the aged. The pharmacist himself will also suffer, as he will have to carry out additional unpaid duties that may well cause friction with the public. Not in any artisan spirit, but in a sincere desire to reserve a Health Service that has been an example to most of the world, a joint meeting has been called by the Association of Pharmaceutical Employees and the Socialist Medical Association (pharmacy section) for 7.30 p.m. on Friday, February 2 at Friends Meeting House, Euston Road, London, N.W.1, when Dr. Barnett Stross, F.P., Mr. John Baird, L.D.S., M.P., and others, will speak. Mr. Van Abbé, Ph.C. (chairman, pharmacy section, A.Sc.W.) will be in the chair. May I appeal to pharmacists to attend this meeting, as I am certain that the vast majority of pharmacists oppose the prescription charges.

Brentford.

B. A. WILLIAMS,

Chairman, *pharmacy section*,
Socialist Medical Association.

Anti-coccidial Drugs

SIR,—In addition to reading recent preliminary notices in the Press, we have seen publicity material announcing to poultry farmers the marketing of a brand of nitrofurazone designed for the control of coccidiosis. To date, we can trace no publications reporting the results of strictly comparative trials with established drugs against *Eimeria tenella* infections in chicks. Without supporting evidence, claims for the superiority of nitrofurazone may be misleading. It is claimed, moreover, that by treating four to five-week-old chicks with this brand of nitrofurazone at a cost of three halfpence per chick the farmers are enabled to save half their former outlay on other treatments. This is not

Sulphaquinoxaline sodium solution in drinking water, which is one of the established forms of treatment, accounts for no more than a cost of approximately 1½d. per chick in birds of the same age. Sulphaquinoxaline premix (now available for use in mash where medication of feed may be desired) works out no less favourably, apart from exceptional cases, however, is

it not widely accepted by scientific observers and practical farmers in this country that in the treatment of established outbreaks of coccidiosis the drinking water method is to be preferred?

PHARMACEUTICAL SPECIALITIES

(MAY & BAKER), LTD.

R. PAISLEY, *Veterinary Division*.

Dagenham.

Liquid by Volume or Weight?

SIR,—In the controversy over selling pharmaceutical preparations by weight or by volume, no mention has been made of that very important item: stocktaking. I well remember thirty or so years ago, when every bottle was tared on the shoulder with a diamond and after filling had again to be weighed. The bottle makers of those days could not produce a range of uniform bottles. Tared containers greatly simplified stocktaking and all chemists had their dispensary containers similarly tared. If price by volume is adopted, the contents have to be either estimated or measured. By estimation quite appreciable errors can ensue, which at current prices can be very expensive. With measurement, a certain loss of material occurs and the job becomes long and tedious, thereby increasing the cost of the operation. So much for the effect on one of the routine jobs of pharmacy. Let us now consider other aspects. The time involved reading and adjusting the height, pouring into and out of the measure is, I suggest, greater than taring and weighing. With increasing viscosity the operation becomes slower and messy. There is also risk of contamination where single items for special orders are measured. Own goods packing by volume, yes, but not bulk drugs. There is the further question of dispatch of goods by post, passenger train, rail or carrier. Weight is the standard. Sizes of parcels have little restriction, but charges for carriage are all by weight (15 lb. maximum by post, etc.). Finally, one wholesaler has a price list giving prices of liquids by weight and by volume, and is prepared to supply according to their customers' demands. One instance I quote: Fehlings solutions 1 and 2. It is known that equal volumes of each are used in the test. When 8 oz. of each is ordered, 8 oz. No. 1 is supplied and 10 oz. No. 2 (i.e., 8 fl. oz. of each).

Yours faithfully,

Nottingham.

E. STUBBS.

AN ANALYSIS OF 17,000 PRESCRIPTIONS

PROFESSOR D. M. DUNLOP, assisted by colleagues at the department of therapeutics, University of Edinburgh, and clinical laboratory, Royal Infirmary, Edinburgh, has given in the "British Medical Journal" (1952, **I**, 292-95) an analysis of 17,301 prescriptions on EC 10 forms.

Classification

The forms, all dated September 1949, were obtained through the Central Prescribing Committee, and classified as coming from three main types of area in England: 1, Prosperous residential; 2, industrial; and 3, mixed suburban. Each area included from four to six districts in different parts of England, but in each district the prescriptions came from one chemist only. "As might be expected" a higher proportion (27 per cent.) of proprietary preparations were prescribed in the prosperous residential than in the industrial areas (21 per cent.), though rather surprisingly the proportion in the industrial was higher than in the mixed suburban areas (14 per cent.). It was concluded that the prescribing habits of doctors, and not anything associated with the social groups, was mainly responsible for the differences. The overall average of 21 per cent. of proprietary drugs, which was thought excessive, was believed to have been exceeded subsequently. Mixtures and tablets accounted for 68 per cent. of all of the prescriptions, varying in the areas, again probably according to doctors' prescribing habits. Prescriptions for preparations other than tablets or mixtures showed remarkably similar distribution everywhere. Dr. Dunlop urges that tablets should be prescribed in preference to mixtures as, except with children, they are "not only more accurate but more convenient," and in general cheaper (smaller dispensing fee). Alkaline powders were preferred for similar reasons to "the more expensive and cumbersome mixtures." Dressings and appliances, which accounted for 9 per cent. of the total, were often expensive, and lint and cotton-wool were often ordered "in enormous quantities." Injections formed only 1½ per cent. of the total, but it was thought that doctors themselves often gave the injection, which would thus not be ordered on an EC10.

An analysis of the actual drugs or groups of drugs is summarised in the table (p. 225). It shows that hypnotics and sedatives are the largest groups (15 per cent.)

of all drugs prescribed. Barbiturates comprised 9.4 per cent. and bromides 5.8 per cent. The continued popularity of bromides caused surprise, for Dr. Dunlop doubted whether a small single dose, normally prescribed, had any more effect as a hypnotic than a draught of salt water. He thought it strange that chlorhydrate, a valuable hypnotic suitable for children, should be so seldom used (it was prescribed alone only once). Paraldehyde was not prescribed. Apart from phenobarbital, the barbiturates were prescribed under their proprietary names.

Stomachics, the next largest group comprised just over 9 per cent. of prescriptions. Tonics (8.9 per cent.) included "many elegant and complex recipes" and "generally be classed as placebos." Among antipyretics and mild analgesics, aspirin, B.P.C., was popular, as was tab. codein, co., B.P. Both were thought to be bought in large quantities by patients.

"Some Therapeutic Confusion"

Expectorant cough mixtures were prescribed more than twice as often as sedative kind, though their value is doubtful. The frequent combination of expectorant and sedative cough mixtures seemed to demonstrate "some therapeutic confusion."

About 40 per cent. of all vitamins prescribed (4.26 per cent. of all prescriptions) were for proprietary preparations. Aneurin and vitamin B complex made up about half the total, and vitamin C less than one-tenth. Aneurin was apparently used in the mistaken belief that it had a beneficial effect on the neuritic pains experienced in Britain. "The imagination boggles at the thought of the possible worth of unwanted synthetic water-soluble vitamins that are daily lost in the urine." Several prescriptions for vitamin E cost about £5 and one over £14 and the author cites them as showing the need to stress the cost of drugs in teaching hospitals. Penicillin accounted for about 10 per cent. of the total number of prescriptions, about 30 per cent. of which were for oral preparations and 40 per cent. for penicillin ointments. It was thought that the injections of penicillin would have been supplied by doctors themselves on EC10a. The infrequency of adrenal injections was thought to be similar.

C. & D. RETAIL AND DISPENSING PRICE LIST

THE dosage of sulphadimidine tablets recommended by the manufacturers corresponds to that of the British Pharmaceutical Codex and is twice that of the Addendum, 1951, to the British Pharmacopoeia, 1948. The pharmacist should note that with this drug the official dosage may be exceeded. The increased price of glycerin from February 1, will in time necessitate changes in the price of some galenicals. The drug index for the month is 210.

ORDER	GROUP	GROUP TOTAL
1	Hypnotics and sedatives ..	2,643
2	Stomachics ..	1,678
3	Tonics ..	1,553
4	Antipyretics and mild analgesics	1,528
5	Cough mixtures ..	1,382
6	Vitamins ..	739
7	Penicillin ..	681
8	Bronchial dilators, analgesics, antispasmodics ..	637
9	Iron ..	623
10	Laxatives ..	587
11	Sulphonamides ..	498
12	Cardiac drugs ..	481
13	Hormones, liver ..	477
14	Rarely prescribed drugs ..	412
15	Antihistamines ..	302
16	Urinary preparations ..	264
17	Amphetamine ..	218
18	Strong analgesics ..	156

ained; "the habit of self injection with adrenaline is not commonly taught to asthmatics." It was considered remarkable that one should have been prescribed in only about 6.2 per cent. of prescriptions, against over 4 per cent. for vitamins, in view of the high incidence of iron-deficiency anaemia in Britain by comparison with the relative rarity of vitamin-deficiency states. The small total of prescriptions for laxatives (4 per cent.) suggested that many people will bought their own.

Sulphonamide prescriptions (3 per cent.) were divided into tablets (56 per cent.), mixtures (12 per cent.) and skin preparations (10 per cent.)—the last a high proportion in view of the likelihood of evoking sensitivity reactions by topical application. It was all to the good that powdered digitalis leaf or digoxin tablets were placing tincture of digitalis. While diabetes is a common disease, and the ischaemic anaemias comparatively rare, few preparations were ordered fifty times, against only sixty-eight prescriptions for sulfin, suggesting that liver was often prescribed as a general tonic.

Calling for a series of simple lectures in therapeutics in the final clinical year of the medical course by a physician interested in pharmacology, the author points out that a young graduate often goes into practice with an inadequate knowledge of applied pharmacology, and tends to rely more and more on the "ingenious (sometimes very good, but sometimes very misleading) advertisements of the drug firms which cover his breakfast table." Few occasions, he declares, demand the prescription of more than one drug in a bottle, tablet or powder, plus the vehicle and flavouring agent, and "good prescribing is often economical prescribing."

Cost.	Item.	4 oz.	1 oz.	1 dr.
d.	per	s. d.	s. d.	s. d.
54	4 oz. Acid. tannicum ..	—	2 0	0 4
123	1lb. Camphora natural ..	4 4	1 3	0 2
132	1lb. Cera alba in massa ..	4 9	1 4	0 2
138	1lb. Cera alba in placentis ..	4 11	1 5	0 2
63	oz. Eugenol ..	—	—	1 6
128	oz. Ext. ipecacuanha liquidum ..	—	—	3 0
51	oz. Hydarg. iodid. rub. S. I. P. 11. (4)	—	7 5	1 1
45	oz. Hyd. oxid. flav. P. I. (8)	—	6 9	1 0
45	oz. Hyd. oxid. rub. P. I. (8)	—	6 9	1 0
40	oz. Hyd. subchloridum ..	—	5 10	0 9
38	oz. Hyd. ammoniatum P. I. (8)	—	5 7	0 9
8	lb. Liq. hydrogenii perox. 10 vol. 16 fl. oz. is.	0 4	0 1½	—
13	lb. Liq. hydrogenii perox. 20 vol. 16 fl. oz. is. 8d.	0 6	0 2	—
123	oz. Menthol ..	—	—	2 11
68	oz. Ol. cari ..	—	—	1 7
73	oz. Ol. caryophylli ..	—	—	1 9
37	lb. Ol. lini 16 fl. oz. 4s. 3d.	1 4	0 5	—
43	oz. Ol. pin. pumilioris ..	—	—	1 0
36	oz. Ol. pin. sylvestris fact.	—	5 3	0 9
43	lb. Ol. rapae 16 fl. oz. 5s.	1 5	0 5	—
72	oz. Procain. hydrochlor. S. I. (4)	—	—	1 9
144	oz. Succinyl. sulphathiazol. S. I. R only	—	—	3 5
70	lb. Syr. codeinæ phosph. P. I. (9)	3 3	0 11	0 2
78	lb. Tr. catechu ..	2 9	0 10	0 2

ECHOES OF THE PAST THE KING'S EVIL

From "The London Chronicle,"
March 10-13, 1759.

THOSE who are so unhappy as to be afflicted with the KING'S EVIL, or any SCROPHULOUS TUMOURS, may be furnished with a medicine at Mr. Newbery's, at the Bible and Sun in St. Paul's Church Yard, which has cured Numbers of those Complaints; and may see the Certificates of several Persons who have been restored to perfect Health, even after they were . . . discharged as incurable from the publick Hospitals.

IN PLACE OF PINK STRING

How, by "streamlining" packaging, self-adhesive tapes and gumstr have brought about a silent revolution at the chemist's counter, distribution, and in manufacturers' packing departments.

ALWAYS known for the pride they take in packaging, chemists have been compelled in recent years to abandon the pink-string-and-sealing-wax standard. Dur-



The elegance of the capped bottle in its white wrapping, with wax seal and prescription envelope tightly bound with pink twine, never failed to make an impression on the patient. Chemists took pride in packaging before the era of the mass-produced carton—and still do.

ing the 1939-45 war they were bound by regulation to hand out goods without wrapping. When it ended, they were driven to a more utilitarian style of wrapping by lack of time, lack of materials, and economic considerations.

Self-adhesive Tapes

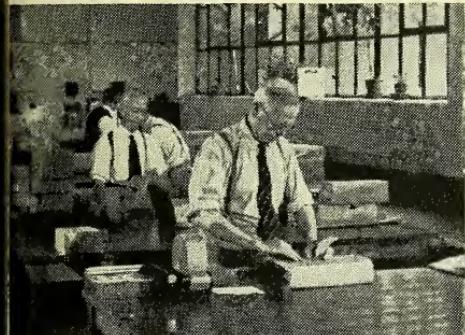
However, the rapid rise of self-adhesive tapes has put in their hands a means of instantly sealing a wrapped package with a neatness and finish as attractive in their way as the traditional chemist's medicine wrapping was at its best. This new package-sealing medium has developed since the early 1930's, but most rapidly in quite recent years, and today a diverse range of tapes, answering most problems of sealing, holding, protection and advertising, is available. Normally a basic film of 600 substance (60 gm. per sq. metre) is used, though a thicker basic film is sometimes required. Cellulose tape has a tensile strength of approximately 16 lb. per in. width, with a 15 per cent. stretch. To reduce the natural brittleness of cellulose hydrate the film is passed through a glycerin bath before the adhesive mass is spread. A thin film of varnish is then

applied. By that means the tape is rendered more pliable, and the risk of splitting during application is reduced to minimum. Once sealed, packages cannot be tampered with unnoticed, and can withstand any amount of rough handling. The contents are preserved and protected from the air, moisture and foreign bodies. The tape is accepted by the postal authorities on registered parcels provided it encloses the parcel and is marked or overprinted with the sender's name or trademark, and by British Railways as conforming to the regulations for sealing fibreboard cartons. Plain, transparent or opaque tapes are available in a variety of colours, and overprinting with a sales message or name and address has been brought to perfection. In fact Industrial Tapes, Ltd., one of the principal producers in the field, have in the past four years built a modern printing shop and offer single-ply tapes printed in one, two or three colours for packaging and sealing operations.



With self-adhesive tape on a cutting machine, a man at the counter can wrap a parcel as neatly and attractively as the machine factory—and more quickly than by tying with string.

ions and, for labelling, a laminated tape, all printed to any design, trade-mark or sales message. If a tape is required to withstand excessive dampness, a cellulose acetate tape made on 0.003-in. basic film is recommended. Greater elasticity and resistance to water, oil and petrol are provided by ethyl cellulose tape, which is thus valuable in sealing containers likely to come in contact with grease or injurious fumes. (The amount of moisture absorbed by the film is only 50 gm. per sq. metre per day, an almost negligible quantity.)



In the works packing department gumstrip sealing provides the means for speedy, economical sealing and the strength to withstand all the hazards of transit. Nothing projects to trap hooks or impede packing.

The main outlet for self-adhesive tapes has been and is, of course, among manufacturers, especially of packaged goods. The cellulose tape is made in many widths from 1 in. upwards. Normally the rolls are 36 or 72 yd. in length, though automatic sealing machines, which operate most economically with long rolls, can be supplied with rolls up to 300 yd. With printed tape rolls, manufacturers are able to provide their customers with advertisement strips for use on shelf edges, whether of glass, plastic or wood, or (printed on the reverse side) on shop windows.

Gumstrip

In part the rapid rise in popularity of self-adhesive tape has been occasioned by the interruptions in the free supply of adhesive paper strip, which has been the material of choice for many purposes since it was first introduced. Chemists whose gumstrip sealing-machines are lying idle because they cannot obtain the strip with which to feed them may find it tantalising that Samuel Jones & Co., Ltd., have chosen the present time to launch a new



Gumstrip machines enable workers to wrap and seal without risk of sticky fingermarks on labels or cartons with "quality" appeal.

film, "We Have It Taped," featuring that material. In point of fact the film may presage better news in due course, for its purpose is to instruct packers in warehouses and factories—whose naturally heavy demands are one reason why smaller users have had to go without—how to extract the maximum value from the material and how to avoid waste. If the film achieves its object it may, taken in conjunction with an (unwanted) decline in exports which current figures portend, make more gum strip available for the small buyer, even in face of a reduced quota of kraft paper to



In America, printed adhesive strip proves its value in the special task of providing durable labels on bottles of corrosive liquids. Chemists know only too well how vulnerable are paper labels.

the manufacturers. Whether that happens or not, the film demonstrates admirably how gumstrip should be used in sealing packages of goods for transit or shipment. The important criteria are to select strip of adequate width and tensile strength for the job in hand, to cut it (or have it automatically cut) to the right length, and to apply it correctly moistened (and that may mean, for certain purposes, maintaining the water at a constant temperature). When all these points have been attended to, and provided the paper has been wrapped tight and close to the contents, the result is a package that protects well and handles well. Railway and road transport and Post Office officials welcome it, and it is as creditable in its way to the manufacturer or wholesale sender as the bottle of medicine wrapped in pink string and sealing wax was to the chemist who pioneered the art of packaging in Victorian

times. A point worth noting is that gumstrip-sealed packets are accepted registered post if the strip is overprinted with the name or identifying mark of sender.

The film (16 mm. sound; 20 min. running time) is, apart from being shown by the company in principal provincial towns, available on loan to trade firms application to Messrs. Samuel Jones at New Bridge Street, London, E.C.4.

For marking potent chemicals, American Fisher Scientific Co. design and produce for scientific and research workers a caution-label "dispenser." Warning words such as "Poison," "Corrosive," "Radioactive" are imprinted on rolls of cellulose tape, each in a distinctive colour. Each roll fits on to a metal wheel of the dispenser and each wheel is made to turn independently of the others.

NEW BOOKS

Chemical Control of Insects.—T. F. West, D.Sc., Ph.D. (Lond), A.M.I.Chem.E., F.R.I.C.; J. Eliot Hardy, D.Sc. (Prague), M.A. (Cantab.), F.R.E.S.; and J. H. Ford, F.R.E.S. 7½ x 5¾ in. Pp. 211 (including index). 15s. Chapman & Hall, Ltd., 37 Essex Street, London, W.C.2. The book gives the chemistry and properties of a large number of substances used against insects. The applications of the main insecticides are contrasted and some account is given of field work now being carried out with certain chemicals. References to monographs for further study are given at the end of each chapter.

The Cost of Sickness and the Price of Health.—C.-A. Winslow. 9½ x 6½ in. Pp. 106. 7s. 6d. Agents: H.M. Stationery Office, York House, Kingsway, London, W.C.2. Seventh in the monograph series published by the World Health Organisation, this book forms a useful study of the value of public health services. The relatively small investment involved in a sound public health programme is contrasted with the "staggering burden upon the human race" of the cost of preventable disease. The need for a "total programme of social reconstruction" embracing agriculture, industry and economics as well as health is emphasised.

Hormones, a Survey of their Properties and Uses.—H. E. Dale; C. W. Emmens, D.Sc., Ph.D.; D. H. Hey, D.Sc., Ph.D., F.R.I.C.; and T. D. Whittett, Ph.C.,

D.B.A.; and others. 8½ x 5½ in. Pp. 35s. The Pharmaceutical Press, 17 Bloomsbury Square, London, W.C.1. This book is published by direction of the Council of the Pharmaceutical Society and deals with the history, physiology, chemistry, standardisation, action and uses, pharmaceutical applications and commercial preparations of hormones. References are given at the end of some of the chapters and a bibliography is provided at the end of the book. Illustrations are given showing effects of hormone deficiency and excess, structural formulæ, etc. There is a full index.

Medicinal Chemistry, VOLUME C. M. Suter (editor-in-chief). 9 x 6 in. 473. 80s. Chapman & Hall, Ltd., 37 Essex Street, London, W.C.2. Intended primarily for chemists and pharmacologists concerned with the synthesis and evolution of new compounds, the volume is the first of a series of reviews prepared under the auspices of the division of medicinal chemistry of the American Chemical Society. The first chapter (on antithyroid compounds) typifies the general style of work. It deals with mode of action of the drug, and synthesis, measurement of activity, and procedures for experimental and logical testing. Subsequent chapters with antispasmodics, antibiotics from penicillins and substituted penicillins, anæsthetics and aralkylamine analgesics and analgesics with partial structure related to morphine.

N.H.S. PROFITS INVESTIGATION

VELS of profits on goods supplied for in the National Health Service are set forth by the Comptroller and Auditor-General in his report on the Civil Appropriation Accounts (classes I-VIII), 1950-51, recently published. The report of the Public Accounts Committee, 1950-51, though aware that there may be some measure of competition in the industries supplying those goods, was unable to share the view of the Departments that it could be relied upon to secure reasonable prices when the total quantities required formed a large proportion of the total available supplies. They considered that it would be effectively protect the Exchequer if

Departments treated the prices for supplies as needing the same careful investigation as prices for supplies under competitive tenders. "The Ministry of Health recently informed me that the control of prices of goods used in the service is under consideration with the Treasury." The following abstracts from the report deal with questions which the Comptroller has raised with the Ministry.

Drug Tariff

The prices paid to chemists for drugs, which are laid down in tariffs issued by the Departments and some prices have been increased substantially since the commencement of the Health Service. I had definite information as to the way in which the tariffs were compiled, but they referred to me to be based on lists of wholesale prices issued by the industry. I therefore asked the Departments in September last what evidence they obtained that the prices are fully competitive for manufacture and distribution, and are not fixed by an association of the industry. I asked them what evidence they obtained in support of the increases in price. The Departments recently informed me that the tariff prices were based on the current price list of one of the largest manufacturers which was compared with the prices of other manufacturers. The Ministry of Health stated that the prices in the tariffs were determined by the ordinary processes of commercial competition except in so far as there was Government intervention through the imposition of price controls; surgical dressings were, however, the only articles on which price control had been imposed and that control was ended in 1949. The Department of Health

for Scotland stated that, at present, they had no machinery for investigating and controlling manufacturers' prices and wholesalers' margins, but that the question was under consideration as a matter of policy. The Ministry of Health also informed me that if the price lists issued by various manufacturers showed marked increases in any prices it was their practice to find out the reasons.

The Departments' replies do not state whether they have satisfied themselves that the normal processes of commercial competition are not limited by any agreements between manufacturers or whether they have any evidence that these processes are adequate to ensure that no more than fair and reasonable prices are paid in the abnormal circumstances in which the Exchequer meets the cost of the bulk of the chemists' purchases of these goods.

Proprietary Preparations

A sample analysis of prescriptions in England and Wales in October 1950 showed that about 18 per cent. of them included proprietary preparations the total cost of which amounted to about 43 per cent. of the cost of ingredients of all the prescriptions in the sample. A sample analysis in Scotland showed that prescribing of proprietaries had increased from 16.4 per cent. in September 1948 to 29.7 per cent. in September 1950.

In July 1950 the Joint Committee on Prescribing had recommended that proprietaries should be freely prescribable subject generally to certain qualifications, one of which was that satisfactory arrangements for price were made between the Departments and the manufacturers. The Ministry informed the Public Accounts Committee of 1950-51 that they were picking out the proprietaries most commonly used with a view to negotiating price reductions; the manufacturers of two preparations had then been approached and a reasonable reduction secured in the price of one of them.

The Ministry have since secured some reduction in the prices of the other products but propose to review them again; and they have in addition opened negotiations with fifteen other firms. They have informed me that investigation of the costs and profits of manufacturers of proprietaries had been considered, but they had no staff qualified to undertake this work

and the Board of Trade, who were approached, were not in a position to help.

The Ministry have placed direct contracts for certain special drugs. The Ministry state that the Transfer of Functions (Medical Supplies) Order, 1947, (S.R. & O 1947, No. 2472) did not transfer power to

investigate manufacturers' costs. I have since asked the Ministry if they have sought legal opinion whether they or the Ministry of Supply possess such power under the Ministry of Supply Act, 1937, and the Supplies and Services (Transitional Powers) Act, 1945.

HEALTH SERVICE IN

UNDER the Social Services Agreement, the Northern Ireland Government is introducing a one shilling charge on Health Service prescriptions as in Great Britain. As general powers have already been conferred on the Ministry of Health and Local Government by the Health Services (Amendment) Act, 1950, the charge will be imposed through a substantive resolution to be presented to both Houses of Parliament at the opening of the new session on February 19. It should be possible for the charges to be put into force in March. At a meeting of the Northern Ireland General Health Services Board on January 30 it was decided to make an interim payment to chemists of £108,600 for December 1951 and a balance of £13,500 for August 1951. MR. R. GETGOOD, commenting on the Board's estimates for 1952-53, asked why the capacity for taking medicine was higher in Northern Ireland than in Great Britain. DR. J. GIFF said that the cost of drugs and the purchase tax on them had increased. The Board decided to furnish doctors at regular intervals with price lists of new drugs. A remodelled prescription form was also approved.

On the recommendation of the Drug Pricing Committee the Board has decided no alteration should be made in the scheme whereby prescriptions costing more than £5 received early payment in full.

Definition Sought

Because of a query whether nebuliser Antistin Privine could be regarded as an "antihistamine agent," the Ministry of Health will be asked to define that term. A doctor will be informed that adrenaline cream is not a standard preparation and a chemist who dispensed his own brand on four prescriptions will be paid the tariff price of 2s. 6d. per oz.

In view of continued misunderstanding and confusion the Board will ask the Ministry to withdraw the special arrangements for PAS and allow it to be prescribed by general practitioners on form HS21. The memorandum giving details of the

NORTHERN IRELAND

new Drug Tariff and of payment for services and urgent prescriptions has been issued to chemists and is now in operation.

The Board has ordered a deduction £5 from the remuneration of a company of chemists who supplied a pair of "two-way stretch" elastic stockings to a patient who presented a prescription on the Board's form for "elastic stockings, above knee, one pair." It was stated that the company subsequently returned the prescription to the doctor who issued it with a request that it should be endorsed "two-way stretch." For the company a director said that the patient seemed certain that she was to get "two-way stretch" and to assist her it was agreed to supply that and refer the matter to the doctor.

Test Prescriptions

The Drug Pricing Committee decided to take no action in a case in which an officer of the Board presenting a test prescription for 8 oz. gauze and cotton tissue was informed by the chemist that the item was supplied only in 16-oz. packages and to refer to the Services Committee a case where an officer of the Board presenting a prescription for absorbent pads to an appliance supplier was informed by the supplier that he did not supply appliances under the scheme other than elastic hosiery.

It was reported to the Executive Committee that a company of chemists had failed to produce to the Board the invoice for prescriptions sent to them in August 1951. The Committee decided to record the amounts overclaimed and received by the contractor. The apparent breach of the company in failing to comply with directions to furnish prescription forms will be referred to the Services Committee.

A claim by a chemist for the supply of eighty-six tablets to a person who afterwards convicted of having altered a prescription form on which the number originally stated was thirty-six has been referred to the legal adviser.

TRADE REPORT

Spot quotations for pharmaceutical chemicals represent the prices for wholesale quantities of standard quality. Prices of crude drugs and essential oils vary as to brand or grade.

London, FEBRUARY 13

ALL markets continued dull during the past week. The shortages of certain commodities in PHARMACEUTICAL and FINE CHEMICALS show little sign of easing. Among these are STRYCHNINE salts and SANTONIN. CHRYSAROBIN is also extremely scarce on the spot, owing to importers being unable to obtain offers of ARAROBA from Brazil. An increase in the rates for AMMONIUM CARBONATE and BICARBONATE was announced by some manufacturers on February 11. The spot position of HONEY remains tight. Supplies of the new season's crop from Jamaica are awaited, and Argentine material, on the spot, is almost exhausted. Quotations for Australian were advanced by approximately 5s. per ewt. Manufacturers of synthetic CAMPHOR have reduced their charges by threepence per lb., and the Chinese natural powder is also lower by about sixpence per lb. Chinese MENTHOL is fractionally easier on the spot, and Brazilian offers for shipment show the considerable reduction of 3s. per lb. on the week. WAXES and SHELLAC show further declines. Quotations from origin for GUM ACACIA are lower by 6s. per cwt.; spot prices immediately reflected the easier position. Most other CRUDE DRUGS are remarkably firm considering that there is practically no inquiry.

The downward price tendency in the ESSENTIAL and EXPRESSED oils market has continued. Spot offers of Formosan CITRONELLA are now the same as for Ceylon material. LEMONGRASS, ROSEMARY, Chinese PEPPERMINT were among the oils quoted lower. Although spot supplies of OLIVE are reported low, there is evidence that buyers are withholding their orders in anticipation of lower quotations. Business is reported done in Spanish oil at just over £220 per metric ton, f.o.b. main Spanish ports.

U.S. Drug and Chemical Report

NEW YORK, FEBRUARY 12

DEMAND has been quiet for refined GLYCERIN. A downward trend in MENTHOL brought the price to \$7.85 per lb. for Brazilian (down 40 cents) and Chinese to \$8.75 (25 cents). Meanwhile, good consumer demand has been noted for synthetic menthol selling at about \$7.00 per lb. There is little SANDARAC available on the spot and the price is firmer at \$3.60 per lb. GUM ACACIA has been easier at 16½ cents per lb. ESSENTIAL OILS remain extremely quiet. CLOVE is priced at \$4.75 per lb. (up 25 cents). Bourbon GERANIUM, at a minimum of \$13.00 per lb. is down 25 cents.

Pharmaceutical Chemicals

AMIDOPYRIN.—In 1-cwt. lots the price is from 32s. 6d. to 35s. per lb.

AMMONIUM BENZOATE.—For 28-lb. lots and upwards the price is 5s. 6d. per lb.

AMMONIUM CARBONATE.—B.P. Lump is £71 5s. per ton; POWDER, £74 5s. BICARBONATE is £47 15s. per ton, all delivered free U.K. in non-returnable packages.

AMMONIUM CHLORIDE, B.P. — Makers quote 1-cwt. lots at 11½d. per lb.

ASPIRIN. — Prices are as follows:—5-cwt. lots, 4s. 10d. per lb.; 1-cwt., 4s. 10½d.; 28-lb. and under 1-cwt., from 5s. 8d. to 6s., according to pack. Rates per 1,000 for TABLETS are as follows:—Under 5,000, 5s. 0½d.; 5,000 and over, 4s. 10½d.; 10,000, 4s. 9½d.; 25,000, 4s. 7½d.; 100,000, 4s. 5½d.; 250,000, 4s. 5d.; 500,000, 4s. 4½d.; 1,000,000, 4s. 3½d.

BENZENE. — B.P.C. grade is quoted at 4s. 11½d. per gall.; thiophene-free, 7s. 3d. per gall. in 50-gall barrels.

BENZOCAINE. — 28-lb. lots are 44s.; 14-lb., 45s.; and 7-lb., 47s. 6d. per lb.

BORAX.—Prices for B.P. grade, in quantities of 1 ton and upwards are as follows:—Granular, £48 10s.; crystals, £51; powder, £52; extra-fine powder, £53 per ton. Prices of commercial range from £39 10s. to £44 per ton, as to type, and dehydrated borax is now £60 10s. per ton. In 1-cwt. bags; carriage paid in Great Britain. Surcharges for small quantities as previously.

BRUCINE.—ALKALOID is from 1s. 8d. to 1s. 9½d. per oz., and NITRATE and SULPHATE from 1s. 7d. to 1s. 8½d. per oz., as to quantity.

CALAMINE. — 1-cwt. lots are now 3s. per lb.

CALCIUM SUCCINATE. — Quotations are from 10s. 6d. to 12s. 6d. per lb., as to quantity. SUCCINIC ACID is from 10s. 3d. to 12s. 3d. per lb.

CARMINE.—Prices are from 85s. to 90s. per lb., according to quantity.

CHLORAL HYDRATE.—In 1-cwt. lots the price is 5s. 5d. per lb.

CHLORBUTOL.—28-lb. lots are at the rate of 13s. 6d. per lb.

CHRYSAROBIN.—Scarce. In 1-cwt. lots, B.P. is now 52s. 6d. per lb.

CITRIC ACID.—British makers quote 218s. per cwt. for 1-4-cwt. lots and 213s. per cwt. for 5-cwt. Quotations are now net.

CREOSOTE.—B.P. quality, ex beechwood, is quoted at from 6s. 9d. to 7s. 6d. per lb.

CRESOL.—Price of B.P. quality from distillers is 7s. 9d. per gall. in 5-gall. lots.

DIPHENAN.—Prices range from 58s. to 67s. per lb., according to quantity.

DITHIRANOL.—Manufacturer's price is 407s. per kilo.

GLUCOSE.—Prices (per cwt.) for liquid glucose sold by manufacturers (or distributors) to consumers in original containers are as follows:—In tanks (2 tons or over), 72s. 6d.; in 3-cwt. barrels or over, 74s. 4½d.; in 5 to 6-cwt. drums, 73s. 9d.; in 1-cwt. drums or pails, 74s. 1½d.; in 56-lb. tins, 76s. 6d.; in 28-lb. tins, 78s. 3d.; in tins or jars of 14-lb. capacity or less, 80s. Higher prices up to 99s. 6d. per cwt. are charged where the buyer requests the breaking down of an original container of 3-cwt. or more capacity.

GUAIACOLS.—Liquid and crystal are from 16s. 6d. to 17s. 6d.; and carbonate from 17s. 6d. to 18s. 6d. per lb.

HEXYLRESORCINOL.—Price per lb. is 175s. for 28-lb. or 1-cwt. lots.

HOMATROPINE HYDROBROMIDE.—In 1-lb. lots price is 75s. per oz.; 4-oz., 80s., and 1-oz., 85s.

HYOSCINE HYDROBROMIDE.—Quotations are from 90s. to 95s. per oz., according to quantity, for British material.

LITHIUM SALTS.—Current rates for 1-cwt. lots are as follows:—CARBONATE, 10s. 6d. per lb.; CHLORIDE (commercial), 10s.; HYDROXIDE, 10s.; CITRATE, 8s. 6d.; SULPHATE, 7s. 10d.; SALICYLATE, 9s. 6d.

MAGNESIUM HYDROXIDE, B.P.C.—Makers' price for 1-cwt. lots is 3s. 5d. per lb.

MAGNESIUM OXIDE.—Rates for LIGHT, B.P., are as follows:—1-ton lots, 4s. 5d.; 1-cwt., 4s. 8d.; 28-lb., in tins (free), 5s. 7d. per lb. In bulk packing, HEAVY, B.P., is 5s. 4d. per lb.; in free tins, 6s. 6d. per lb.

MAGNESIUM TRISILICATE.—In 28-lb. packages quantities of under 1-cwt. are now 5s. 5d. per lb. Bulk quantities are unchanged at from 4s. 2d. to 4s. 4d. per lb. for 5-cwt. or 1-cwt. lots respectively.

METHYL SALICYLATE.—In 5-cwt. lots, price is 3s. 2½d. per lb.; 1 cwt., 3s. 3d.; 56-lb., 3s. 3½d.

NICOTINIC ACID.—56-lb. lots, 46s. 6d. per lb.; 28-lb., 47s. 9d.; 7-lb., 52s. 9d. per lb.

OLEIC ACID.—Prices for B.P. are from 1s. 7d. to 2s. per lb. and technical from 1s. 5d. to 1s. 10d. per lb.

OPIATES.—Home-trade rates (per oz.) for quantities of 5 oz. and upwards are as follows:—CODEINE.—Alkaloid, hydrobromide and iodide, 60s. 6d.; hydrochloride and sulphate, 52s. 9d.; phosphate, 45s. 6d. MORPHINE.—Alkaloid, bimeconate, and tartrate, 62s. 6d.; hydrochloride, acetate, hydrobromide and sulphate, 52s.; DIAMORPHINE.—Alkaloid, 62s.; hydrochloride, 56s. 6d.; ETHYLMORPHINE.—Alkaloid, 65s. 6d.; hydrochloride, 55s. 6d.

OXALIC ACID.—In quantities of 1-ton or less than 2 tons, spot material for the home trade is £133 10s. per ton, in 5-cwt. casks; 10 cwt.-1 ton, £138 10s. per ton; 5 cwt.-10 cwt., £143 10s. In 1-cwt. keg prices are £4 per ton more; quantities less than 5-cwt., £162 10s. per ton. Facific ages free; delivered in U.K.

PAPAVERINE.—Synthetic HYDROCHLORIDE is in the region of £46 per kilo.

PHENAZONE.—Supplies remain short. Prices are from 21s. per lb.

PHENOBARBITONE.—1-cwt. lots are no 39s. per lb.; 28-lb., 40s. per lb. SODIUM is 1s. per lb. more than above rates.

PHENYLACETIC ACID.—In 1-ton lots the price is now 5s. 6d. per lb.; 1-cwt., 6s. 1d. Perfumery grade, re-crystallised is from 8s. 6d. to 11s. 6d. per lb., as to quantity.

PHENYTOIN SODIUM.—Quotations for small quantities are at about 32s. 6d. per lb.; the base is available at the same price.

PILOCARPINE.—In 25-oz. lots prices are ALKALOID, 56s. per oz.; HYDROCHLORIDE, 46s. per oz.; NITRATE, 42s. per oz.

PYROGALLIC ACID.—Quotations per for CRYSTALS are as follows: 1 cwt., 18 56-lb., 18s. 6d.; 28-lb., 19s. 6d., n. Smaller quantities are from 21s. to 2 per lb., less 2½ per cent. RESUBLIMED 20s. 3d. per lb. for 1-cwt. lots.; 56-20s. 9d.; 28-lb., 21s. 9d.; 14-lb., 23s. net. Smalls are from 24s. 9d. to 26s. per lb., less 2½ per cent.

SACCHARIN.—In lots of 1-lb. and over B.P.C. powder is quoted at 98s. 4d. per lb. The SODIUM SALT is 79s. 4d. per lb. Prices include duty and carriage.

SANTONIN.—The following makers' prices per kilo apply in the home market, including Eire.—5-kilo lots, £89 10s.; 2-4½-kilo lots, £91; 1 kilo, £92 10s.; 500 gm., £250 gm., £95 10s.; 100 gm., £97; small quantities, £98 10s. Supplies are scarce.

SILVER SALTS.—NITRATE: In 1,000 lots is 4s. 2½d. per oz.; PROTEIN changed at from 36s. 3d. to 42s. 9d. for VITELLIN from 68s. 6d. to 76s. per lb., as to quantity.

STRYCHNINE.—Scarce. Current rates per oz. are given in the following table:—

COMPOUND	Under	25 oz.	99 oz.	100 oz.	500 oz.
	s. d.	s. d.	s. d.	s. d.	s. d.
ALKALOID, B.P.C.	7 4	7 2	7 0½	7 0½	6
BISULPHATE ...	6 2	6 0	5 10½	5 10½	5
HYDROCHLORIDE, B.P.	6 11	6 9	6 7½	6 7½	6
NITRATE, B.P.C.	6 11	6 9	6 7½	6 7½	6
PHOSPHATE ...	8 0	7 10	7 8½	7 8½	7
SULPHATE, B.P.C.	6 5	6 3	6 1½	6 1½	6

Special discounts for large buyers.

THEOPHYLLINE.—Prices for ALKALOID are from 60s. to 67s. 6d. per lb., as to quantity. AMINOPHYLLINE is from 57s to 64s. per lb.

Crude Drugs

BALSAMS. — *Canada* is from 30s. to 42s. 6d. per lb. on the spot. *Copaiba*: *Pará* is offered at 13s. 6d. per lb., duty paid. *Peru* is fairly steady with quotations at 16s. 3d. per lb., in bond, and 13s. c.i.f., for shipment. *Tolu*, natural is offered on the spot at 34s. 6d. per lb. B.P. quality is 30s. per lb., on the spot.

BENZOIN. — No. 1 *Sumatra* block on the spot is quoted at from £27 10s. per cwt. and for shipment £26. c.i.f. *Siam* almonds (medium bold) are 37s. 6d. per lb., spot.

CAMPHOR. — *Chinese* (B.P.) powder on the spot is from 4s. 4½d. per lb. in bond (4s. 10½d. duty paid); ¼-oz. tablets are quoted at 6s. 3d. per lb., duty paid, 2½-lb. slabs, 5s. 3d. per lb., duty paid. Synthetic is now from 5s. to 5s. 3d. per lb.

CAPSICUMS. — *Abyssinian* are 120s. per cwt. on the spot. *East African*, on stalk, are 150s. per cwt., and off stalk, 220s.

CASCARA SAGRADA. — Firm. *American* bark, 1951 peel, is from 330s. to 345s. per cwt., duty paid, and 300s., c.i.f., forward.

CHERRY BARK. — Thin cut natural is quoted at 1s. 11d. per lb., duty paid, ex warehouse London.

CHILLIES. — *Sierra Leone* on the spot are quoted at 250s. per cwt.; for shipment, 225s., c.i.f.; *East African* (Mombasa), 320s., ex warehouse; for shipment, 280s., c.i.f.

CLOVES. — Firm. *Zanzibar* on spot, quoted at 6s. 5d. per lb.; for shipment, 6s. 2d., c.i.f.

ERGOT. — Quotations of *Portuguese* are nominal. Spot is 45s. per lb. and for shipment, 42s., c.i.f.

GENTIAN. — French natural on spot is from 122s. 6d. per cwt., and up to 115s., c.i.f., for shipment.

GINGER. — *African* on the spot is 190s. per cwt. *New-crop February-April* shipment, 165s., c.i.f. *Jamaican* on the spot is from 390s. to 420s. per cwt., as to quality; quotations for *February-April* shipment of *new-crop*, No. 3, are from 228s., c.i.f.

GUM ACACIA. — *Kordofan* cleaned sorts on spot are 120s. per cwt.; *February-March* shipment, 105s., c.i.f.

HONEY. — A firm market. Spot supplies of *Argentine* are very scarce at 120s. per cwt.; *Australian*, 110s. to 115s. per cwt.

IPÉCACUANHA. — Unchanged. Forward offers are: *Colombian*, 54s. 6d. per lb. *Nicaraguan*, 59s. 6d. both c.i.f., *February shipment*. Spot prices of *Colombian* are 57s. 6d. per lb., and *Nicaraguan*, 62s.

KARAYA. — Superior No. 1 gum on the spot is about 325s. per cwt.; No. 2, 280s.

KRAMERIA. — Spot is 120s. per cwt.; for shipment, 107s. 6d., c.i.f.

MACE. — *West Indian* pale blade is 9s. per lb.; for shipment, 8s. 4½d., c.i.f.

MENTHOL. — *Chinese* is now offered at 67s. 6d. per lb., duty paid. *Brazilian* forward price is easier as follows: April-May shipment, 52s. per lb.

MERCURY. — Spot quotations are from £73 5s. to £73 10s. per flask, ex warehouse.

ORANGE PEEL. — *Spanish* bitter quarters are about 2s. per lb., duty paid, and *West Indian*, 1s. 6d., on the spot.

ORRIS ROOT. — Offers of *Florentine* are at 152s. 6d. per cwt., ex warehouse.

QUILLIAIA. — Whole bark on spot is 150s. per cwt., and 134s., c.i.f., for shipment. Cut bark is offered at 170s. per cwt., ex warehouse.

RHUBARB. — Quiet. Double Deer No. 1 is offered at 8s. 9d. per lb., duty paid, with other grades of *Chinese* rough round at from 4s. 6d. to 6s. 9d. per lb., duty paid.

SEEDS. — **ANISE.** — Continued quiet. *Cypri*us, 157s. 6d. per cwt.; *Turkish*, 150s., in bond, and 160s., duty paid. **CARAWAY.** — Dutch are slow with sellers quoting 117s. 6d. per cwt., duty paid. **CELERY.** — *Indian* is unchanged at 1s. 11d. per lb., spot London. **CORIANDER.** — Market more or less unchanged from last week. Spot: *Morocco*, 80s. per cwt., in bond, and 85s., duty paid; *Argentine* splits, 80s., duty paid; *Indian*, 100s. **CUMIN.** — Little business reported. Spot *Cyprus*, 210s. per cwt.; *Indian*, 205s.; *Malta*, 210s.; and *Morocco*, 205s., in bond, and 215s., duty paid. **DILL.** — *Indian* still offering at 85s. per cwt., spot London. **FENNEL.** — *Indian* is 210s. per cwt. spot and *French*, 180s., in bond, and 190s., duty paid. **FENUGREEK.** — *Morocco*, spot London or Liverpool is 45s. per cwt., duty paid. **MUSTARD.** — English is from 75s. to 110s. per cwt., according to quality.

SHELLAC. — Lower. Spot quotations are: *F.O.T.N.*, pure, 287s. 6d. *F.O. Standard No. 1*, 302s. 6d., and fine orange, 330s. to 395s. per cwt., ex-London warehouse.

STYRAX. — Spot is 8s. per lb., duty paid, and 7s. 6d. in bond.

TRAGACANTH. — No. 1 ribbon on the spot is £165 per cwt.; No. 2, £140; No. 3, £105.

TURMERIC. — *Madras* finger is 77s. 6d. per cwt., spot London; for shipment, 62s. 6d., c.i.f.

WAXES. — **BEES'.** — *Dar-es-Salaam* on the spot is 520s. per cwt.; shipment, 495s., c.i.f. *Benguela* on the spot is 500s. in bond; shipment, 475s., c.i.f. **CANDELILLA.** — Spot supplies are offered at 630s. per cwt.; no shipment offers. **CARNAUBA.** — Prime yellow, spot, 1,025s. per cwt.; shipment, 950s., c.i.f. Fatty grey, spot, 790s. per cwt.; shipment, 750s., c.i.f. **MONTAN.** — *Reibbeck* crude on the spot is 135s. per cwt. **OURICURI.** — Spot, 0.5 per cent. impurities, 750s. per cwt. **SPERMACETI.** — Spot supplies are from 2s. to 2s. 3d. per lb.

Essential and Expressed Oils

ANISE.—Spot supplies are 8s. per lb., and 7s. 6d., c.i.f., February-March shipment.

BAY.—Drum lots of W. Indian are 12s. per lb., on the spot, and from 9s., c.i.f., forward.

CASTOR.—B.P. oil on the spot is £251 per ton; Firsts, £245; Seconds, £235, all naked, ex mill. Quotations for March delivery onwards are £5 per ton less than spot prices.

CITRONELLA.—Spot prices for original drums are: Ceylon and Formosa, 6s. per lb., and Java, 7s. 6d. Forward quotations for Ceylon and Formosa are 5s. 3d. per lb., Java, 5s. 9d., all c.i.f.

EUCALYPTUS.—Firm. 70 to 75 per cent. eucalyptol on the spot is 8s. 6d. per lb. and 80 to 85 per cent., 9s.

GINGER.—English-distilled oil is from 120s. to 150s. per lb., as to grade. Imported oils are available at from 100s. per lb.

LAVENDER.—Quiet. French, 40-42 per cent. linalol on the spot is from 43s. per lb. Spanish spike is 13s. 9d. per lb.

LEMONGRASS.—Forward quotations are 13s. per lb., c.i.f., prompt shipment. Spot supplies are from 14s. per lb.

NUTMEG.—Quiet. English-distilled oil is from 48s. to 50s. per lb. Imported oil (B.P.) is from 35s. per lb., duty paid; forward: from 25s. to 28s., c.i.f., as to source.

OLIVE.—Pharmaceutical oil in 45-gall. drums, spot, is about 31s. per gall. French virgin (maximum acidity 1 per cent.), new-crop, is offered for immediate shipment at £265; Tunisian virgin at £260, and French pharmaceutical (maximum acidity 0.25 per cent.), at £260 per 1,000 kilos, c.i.f. London. Spanish has been bought at £22 10s. per 100 kilos, f.o.b. Spanish port.

PATCHOULI.—Spot supplies of Penang are offered at from 65s. per lb. and forward, 57s. 6d., c.i.f.

PENNYROYAL.—Offers for immediate shipment are from 29s. per lb., landed, duty paid, seller's licence.

PEPPERMINT.—Chinese *arvensis* oil on the spot is 35s. per lb. for 5-case lots. Forward offers for February-March shipment are about 34s. 6d. per lb., c.i.f. Brazilian for shipment is 25s. per lb., c.i.f., and spot, 29s. Italian "Mitcham" type is about 60s. per lb., c.i.f., forward.

ROSEMARY.—Quiet. Spanish on the spot is 7s. per lb., duty paid.

SANDALWOOD.—Mysore oil on spot is from 73s. per lb. for 10-case lots to 85s. per 1-lb.

SASSAFRAS.—Brazilian natural is offering at from 6s. 6d. to 7s. 6d. per lb., duty paid, spot, according to grade.

WORLD TRADE

French Sulphuric Acid Prices.—The French Price Control Office has fixed the ceiling prices of sulphuric acid from producers to the wholesale trade at 1,263 1,514 francs per 100 kilos, according to grade (against 1,080 to 1,438 francs).

Australia to Produce ACTH.—It is reported from Australia that Pacific Laboratories, Inc., Richmond, California, U.S. are planning large-scale production ACTH in Australia. It is planned to form a company with U.S.-Australian capital

Swiss Chemical Exports.—Pharmaceutical exports from Switzerland during December 1950 totalled Swiss fr. 19.3 million against 23.3 millions in the previous month. Industrial chemicals and perfumery exports, Swiss fr. 10.6 millions and 2.3 millions, respectively, also declined.

Danish Medical Products Output.—Danish output of pharmaceutical products in 1951 reached a value of 110 million kroner—an increase of about 30 per cent over the previous year. Exports account for about 69 million kroner (28 million more than in 1950 or 23 times as much as was exported six years ago). Main export articles were: Penicillin and other antibiotics, 29 million; insulin, 11 million and other pharmaceutical products, 11 million kroner. Despite strong competition new markets were established, including the United States and Canada.

NEWCOMER'S NOTEBOOK

4.—British Chemical Plant Manufacturers' Association

The British Chemical Plant Manufacturers' Association, 14 Suffolk Street, London, S.W.1, formed in 1920.

Its objects are:—To foster the manufacture of British chemical plant and its use at home and overseas; to promote co-operation between members of the chemical plant industry and between suppliers and users of chemical plant; to maintain close relations with the Government.

It is the trade association of British manufacturers designing, manufacturing and supplying chemical plant (i.e., plant, equipment and apparatus utilised in production of fine chemicals, pharmaceuticals, heavy chemicals and fertilisers, coal-tar derivatives and products; aromatic hydrocarbons and dyestuffs; petroleum and other products of mineral origin including chemicals, industrial and potable alcohol and their products; edible oils and fats; soap, fatty acids and glycerin, etc.).

The Association publishes an illustrated directory of members, and deals with home and overseas inquiries for chemical plant.

PRICE CHANGES

(I.R.P. = Inclusive Retail Price).

	Doz.	Tax	I.R.P.
	s. d.	%	s. d.
glo-French Drug Co., Ltd.			
Reipar ampoules, 10	84 0	33½	11 8
Tulle gras (Lumiére), 10	84 0	Nil	9 4
Urke, Davis & Co., Ltd. (from February 1)			
shaving cream jar	18 0	33½	2 9
Elixir ephedrine co. No. 208	4-fl. oz. 26 0	33½	4 0
(disp. pack) 16-fl. oz. 84 0	Nil	10 6	
(disp. pack) 80-fl. oz. 380 0	Nil	47 6	
Mixed treatment tablets, C.C.T.	100 36 0	33½	5 6
	1,000 320 0	33½	48 11
Nasoral tablets, C.T. 34	100 28 0	33½	4 3½
(disp. pack) 1,000 240 0	Nil	30 0	
Nutritive salt tablets, C.T. 600 100 36 0	33½	5 6	
& W. Gibbs (U.K.), Ltd.			
S.R. tooth-paste	...		1 8
Dentifrice	...		2 6
Astral skin cream (large)			11
Californian poppy perfume	...		2 6
Spraygloss	...		2 9
en & Hanburys, Ltd.			8 6
Chloramphenicol, B.P.			3 6
5-gm. vial ... each	32 0		48 0
Chloramphenicol capsules, 0.25 gm., 12 ... each	21 4		32 0
100 ... each 170 0			
(disp. pack) 1,000, each 1692 0			
tish Schering, Ltd. (from February 18).			
Albucid oral tablets, 20 ... 30 0		3 4	
100 ... 112 6		12 6	
500 ... 420 0		45 8	
First-aid dressing, 1-oz. ... 27 0		3 0	
pH adjusted substance, 1-oz. ... 60 0		6 8	
Soluble powder, 1-oz. ... 57 0		6 4	
Atophanyl intravenous and intramuscular, box of 5 ampoules ...	63 0	33½	8 9
Cyclotropin intravenous, 5 ampoules ...	54 0		6 0
intramuscular, 5 ampoules ...	69 0		7 8
Medinal tablets, 10 x 5 gr.	24 0		2 8
10 x 7½ gr. 27 0			3 0
Neutralonna, 25 gm. ... 15 0	33½	2 1	

PROPRIETARY ARTICLES TRADE ASSOCIATION

Iterations to the Protected List (Part 1)

Hinksman & Forrest, Ltd.

Hinksman's asthma re-

liever and cigarettes ... 18 6 33½ 2 7

Janssen, Ltd. (Agents: Lehn & Fink Products, Ltd.).

Dr. Janssen's natural tonic laxative, small ... 13 0 33½ 1 10

large 33 0 33½ 4 9

tos, Kerfoot & Co., Ltd. (Addition)

Vapex pastilles ... 13 9 33½ 2 0

Urke, Davis & Co., Ltd.

Panteric compound tablets 26 0 33½ 4 0

88 0 33½ 13 5½

Panteric tablets	26 0	Nil	3 3
			88 0	Nil	11 0
Chloromycetin capsules	...	256 0	Nil	32 0	
(Additions)					
Chloromycetin capsules, 100 each	170 0	Nil	255 0		
Chloromycetin cream, 1 per cent., 1-oz. tube	72 0	Nil	9 0		
Chloromycetin ophthalmic ointment, 1 per cent., ½-oz. tube	...	20 0	Nil	2 6	

Alterations to Protected List (Part 2)

Northam Warren, Ltd. (Agents: J. C. Gambles & Co., Ltd.).

Cutex nail flex ... 12 0 100 2 6

Odorono deodorant cream 327 E 9 9 33½ 1 6

321 16 6 33½ 2 6

Prichard & Constance (Manufacturing) Ltd. Sole selling agents from February 1: County Perfumery Co., Ltd.)

Amanil preparations: Intermediate terms:— Parcels value £2 10s. but less than £4 10s. Best terms: Parcels value £4 10s. and upwards.

Saunders J. Touzeau Preparations (Distributors: Butler & Crispe, Ltd.)

Ninona baby powder ... 9 6 33½ 1 6

INDIAN PHARMACEUTICAL CONGRESS

THE 1951 meeting of the Indian Pharmaceutical Congress organised by the Indian Pharmaceutical Congress Association, Calcutta, was held in Jaipur, December 9-11. The events included symposium sessions on "The Profitable Use of Colouring and Flavouring Agents in Liquid Mixtures and their Incompatibilities," "Pharmaceutical Education," and "Standardisation of Liver Extract"; the reading of scientific papers, a pharmaceutical exhibition, an exhibition of scientific films and a meeting on "Drug Controlling and Analysis on a Uniform Basis." The exhibition included a display of more than one hundred pharmaceutical publications, each accompanied by a historical note of its development. Among them were THE CHEMIST AND DRUGGIST, and "The Export Review." The programme of the congress contained brief histories of pharmaceutical manufacturing houses including Allen & Hanburys, Ltd., Bayer Products, Ltd., Imperial Chemical (Pharmaceuticals), Ltd., and Sandoz Products, Ltd. The president-elect of the congress was Shri S. P. Sen, M.Sc. (general manager, Bengal Chemical and Pharmaceutical Works, Calcutta). In his inaugural address, he described the rôle of the pharmacist, and reviewed modern trends in therapy. He suggested that pharmacists could revive the Ayurveda, "the oldest system of practising medicine."

TRADE MARKS

From the "Trade Marks Journal," January 30

For pharmaceutical preparations (5).

PHARYNGETS, B699,044, by American Cyanamid Co., New York. SUBTILTRYPTASIN, B702,357, by Byk-Gulden Lomberg, Konstanz. THIASEMIPAS, 703,040, by Antigen Laboratories, Ltd., London, W.1. SCOLINE, 703,341, by Allen & Hanburys, Ltd., London, E.2. PROCORB, 703,565, by Wilkinson & Simpson, Ltd., Newcastle-upon-Tyne.

For laxative preparations and substances (5).

KELFO, 700,880, by New Era Laboratories, Ltd., London, E.C.1.

For pharmaceutical tonic preparations in pill form (5).

GOLDEN PILLS, B701,723, by Nu-Organic Remedies, Ltd., London, N.W.6.

For embrocations (5).

ELLIMAN'S UNIVERSAL EMBROCATION, 702,780, by Elliman, Sons & Co., Ltd., Slough.

For analgesic preparations (5).

SOLPRINE, SOLUPRINE, 703,288-89, by Reckitt & Colman, Ltd., Hull.

For pharmaceutical preparations for human and veterinary use (5).

HYDROCA, 702,060, by Organon Laboratories, Ltd., London, W.C.2. PROCARDYLYL, 703,383, by May & Baker, Ltd., Dagenham.

For razors and razor blades (8).

CHINGOLF, 702,948, by Richard LeRoy, Reigate.

For infants' napkins formed of cotton wool with a backing of gauze (25).

LINGAWAD BABYKINS, 667,353, by Joseph Lingard, Ltd., Manchester.

From the "Trade Marks Journal," February 6

For agricultural and horticultural chemicals (1).

JERS, 701,508, by J. E. R. Simons, Ltd., Harlow, Essex.

For non-medicated toilet preparations (3).

COLAIRE, 703,032, by Ashe Laboratories, Ltd., Leatherhead, Surrey.

For cleansing powders for toilet use (3).

SANDIL, 703,819, by Leonard Walter Henry Hill, London, W.5.

For pharmaceutical preparations (5).

SOMATROFOL, 699,795, by Frank W. Horner, Ltd., Quebec, Canada. TRYPTAR, 701,767, by Armour and Co., Illinois, U.S.A. HIC, 701,869, by Edward Hack, London, W.C.1. HEWOESTROL, 703,309, by C. J. Hewlett & Son, Ltd., London, E.C.2. MEGGEGEES, 703,676, by Meggeson & Co., Ltd., London, S.E.16. REGETHERN, 703,684, by Boots Pure Drug Co., Ltd., Nottingham.

For deodorants in liquid, tablet and powder form (5).

CHEMOPHYLL, 702,428, by George Wright Taylor, Bradford.

For pharmaceutical preparations for human and veterinary use (5).

LACTROPHIN, THYTROPHIN, 702,064, by Organon Laboratories, Ltd., London, W.C.2.

For disinfectants and insecticides (5).

ETHODEX, 701,899, by Deodor-X Hygiene Services, Ltd., Ellesmere Port.

For disinfectants (5).

JERS, 702,509, by J. E. R. Simons, Ltd., low.

For analgesic preparations (5).

DISPREL, 703,286, by Reckitt & Colman Hull.

For all goods (5).

FERSAFE, 703,644, by Genatosan, Ltd. which.

For preparations for purification of air, air-dorants and disinfectants (5).

PLEXAIR, 703,404, by Ashe Laboratories, Leatherhead.

For incubators for use in medical work and scientific research (7).

ELA, 698,528, by Electricals, Ltd., Ne on-Tyne.

For medical apparatus for artificial feeding BELCROY, 703,344, by Savory & Moore London, W.1.

For non-medicated toilet paper (16).

DELSEY, 673,645, by International Cell Products, Co., Chicago, U.S.A.

PRINT AND PUBLICIT

Zinc Salts and Stearates.—Among literature available from Durham Raw Materials, Great Tower Street, London, E.C.3, following leaflets:—"Durham Zinc" (leaflet No. 1, reprinted May 1951, 8 pp.); "Zinc Oxides, Their General Proper Applications" (leaflet No. 2, March 1951); "Zinc Carbonate and Calamine" (leaflet revised August 1950, 12 pp.); "Metal Stearates" (leaflet No. 14, April 1950, 24 pp.).

Adhesives for Trade Purposes.—Samuel Co., Ltd., New Bridge Street, London, E.C.3, made available a booklet describing their Samson adhesives (glues, pastes and mastications) are available on request to the company.

Botanical Drugs Handbook.—A new "Medica Vegetabilis" is being published by E. F. Steinmetz, Keizersgracht 714, A. 10-C. (Netherlands). It will be in English, German and Dutch.

Avoiding Fuel Waste.—The Federation of Industries, 21 Tothill Street, London, S.W.1, issued a 20-p. booklet "Fuel Economy" which shows how industry can avoid waste of fuel and even make substantial economies in costs.

Scientific and Educational Books.—The 1951 catalogue of scientific and educational publications or distributed by Cleaver-Hun Ltd., 42A South Audley Street, London, now available.

Reference Book for Shippers.—"Croner's Reference Book for Shippers" is a 300-p. (loose-leaf book, price 25s. An amendment costs 12s. 6d. per quarter. Publishers are Publications, Ltd., Teddington, Middlesex.

Theobromine & Salts

Theophylline Salts



Manufactured at our
Garden City Factory

CARNEGIE CHEMICALS (WELWYN) LTD
Manufacturers of Fine Chemicals
 WELWYN GARDEN CITY, HERTFORDSHIRE, England
 Cables: "Carnechem, Welwyn Garden." Telephone: Welwyn Garden 506



*"Soothe sore throats
in a matter of seconds"*

SPECIAL DIRECT PARCELS—48 tins @ 11/3 per dozen Net
(Purchase Tax extra)

‘SUCRETS’ SELL AT 1/10 PER TIN (including Purchase Tax)